LEGISLATIVE RESEARCH COMMISSION

REPORT
TO THE
1977
GENERAL ASSEMBLY OF NORTH CAROLINA

WATER PROJECTS PRIORITIES

RALEIGH, NORTH CAROLINA

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STATE OF NORTH CAROLINA

LEGISLATIVE RESEARCH COMMISSION

STATE LEGISLATIVE BUILDING

RALEIGH 27611

January 12, 1977

TO THE MEMBERS OF THE 1977 GENERAL ASSEMBLY:

Transmitted herewith is the report prepared by the Committee on Water Projects Priorities of the Legislative Research Commission. The study was conducted pursuant to House Joint Resolution 1195 (ratified Resolution 118) of the 1975 General Assembly and this report is submitted to the members of the General Assembly for their consideration.

Respectfully submitted,

James C. Green

John T. Henley

Co-Chairmen

LEGISLATIVE RESEARCH COMMISSION

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GENERAL ASSEMBLY OF NORTH CAROLINA

SESSION 1975

RATIFIED BILL

RESOLUTION 118

HOUSE JOINT RESOLUTION 1195

A JOINT RESOLUTION TO PROVIDE FOR THE WISE DEVELOPMENT OF THE WATER RESOURCES OF THE STATE OF NORTH CAROLINA FOR THE ECONOMIC AND OVERALL WELL-BEING OF ITS CITIZENS, AND TO PROVIDE FOR THE ESTABLISHMENT OF A PROCEDURE FOR THE PRIORITY BUDGET PROGRAMMING FOR THE STATE SHARE OF THE COST OF THE CONSTRUCTION, MANAGEMENT AND OPERATION OF SUCH PROJECTS.

Whereas, the wise development of the water resources of the State is essential to industry and other uses necessary for the economic well-being and development of the State; and

Whereas, water resources development projects provide municipal water supply which includes the water necessary for domestic and other essential uses by its citizens; and

Whereas, water resources projects provide for the sustenance and habitat for fish and wildlife and for other water based recreational activities for the enjoyment of its citizens; and

Whereas, water resources projects are essential for the protection of the life, health and property of its citizens against disastrous flood and droughts;

Now, therefore, be it resolved by the House of Representatives, the Senate concurring:

Section 1. The Legislative Research Commission is hereby directed to conduct a study on the following matters:

(1) To establish a procedure for obtaining State approval of public works projects as proposed by federal and other governmental and private agencies. Such procedures should distinguish between major and minor projects and establish different procedures for dealing with each.

(2) To evaluate present practices with respect to the split between State and local portions of the nonfederal share of projects and recommend a feasible formula for varying degrees of State participation based upon the nature and distribution of benefits to State, local or private interests.

(3) To establish a procedure for the budgetary programming for the State's share of the cost of these projects.

(4) To evaluate such other aspects of the problem as are relevant and report recommendations on these.

Sec. 2. The Legislative Research Commission shall submit an interim report to the General Assembly of its study and recommendations, if any, on or before January 15, 1976, and a final report on or before January 15, 1977.

Sec. 3. This resolution shall become effective upon its ratification.

In the General Assembly read three times and ratified, this the 25th day of June, 1975.

JAMES B. HUNT, JR.

James B. Hunt, Jr.

President of the Senate

JAMES C. GREEN, SR.

James C. Green, Sr.

Speaker of the House of Representatives

PREFACE

The Legislative Research Commission, authorized by Article 6B of Chapter 120 of the General Statutes, is a general-purpose study group. The Commission is co-chaired by the Speaker of the House and the President Pro Tempore of the Senate and has five additional members appointed from each house of the General Assembly. Among the Commission's duties is that of making or causing to be made, upon the direction of the General Assembly, "such studies of and investigations into governmental agencies and institutions and matters of public policy as will aid the General Assembly in performing its duties in the most efficient and effective manner" (G.S. 120-30.17(1)).

At the direction of the 1975 General Assembly, the Legislative Research Commission has undertaken studies of twenty-nine matters. These studies were divided into ten groups according to related subject matter. The Co-Chairmen of the Legislative Research Commission, under the authority of General Statutes 120-30.10(b) and (c), appointed committees to conduct the studies, the committees consisting of members of the General Assembly and of the public. Each member of the Legislative Research Commission was given responsibility for one group of studies, and served as chairman of the committees appointed within his area of responsibility. Co-Chairmen, one from each house of the General Assembly, were designated on each committee.

The study of Water Projects Priorities was directed by

House Joint Resolution 1195 (ratified Resolution 118) of the 1975 General Assembly (First Session, 1975). The charge to the Committee in Section 1 of the Resolution is very broad, encompassing virtually every aspect of water resource management and development in North Carolina. The Committee on Water Projects Priorities recognized at the initial meeting that the limited budget within which the Committee was required to conduct its deliberations would preclude careful analysis of each of the topics with which it had been charged. The Committee therfore chose to address only as many subjects as could be dealt with effectively. This report addresses coordination with the U.S. Army Corps of Engineers, state procedures for approving and funding projects, interaction between the Department of Natural and Economic Resources and the General Assembly, constitutional issues and financing methods.

COMMITTEE PROCEEDINGS

The first meeting of the Legislative Research Commission Committee on Water Projects Priorities (hereinafter referred to as "the Committee"; a membership list of the Committee may be found in Appendix I) was held on October 24, 1975, in the State Legislative Building in Raleigh. Through a variety of presentations and discussion by members of the Committee, background material was set forth and the goals of the study effort were explored.

Representative Vernon James, Co-Chairman of the Committee, introduced House Joint Resolution 1195 (ratified Resolution 118) which led to the establishment of the Committee. He explained that the resolution was prompted by what he perceived to be a serious deficiency in coordination between the State of North Carolina and the U.S. Army Corps of Engineers. He felt that the State had lost and was continuing to lose federal funds available for water projects and that the situation required legislative investigation.

A great deal of background information was presented by Dr. Arthur Cooper, Assistant Secretary of the Department of Natural and Economic Resources, with the aid of the following members of his staff: Mr. Grady Lane, Mr. Lonnie Thompson, Mr. Osborne, Mr. Coy Batten, and Mr. Everett Knight. Dr. Cooper briefly described the various types of water development projects in North Carolina, then called on Mr. Lane for an explanation of the function of the State Soil and Water Conservation Commission.

Mr. Gray discussed projects financed through state and local cooperation without federal assistance. Mr. Knight discussed Clean Water Bonds. A copy of his statement is contained in Appendix II. Dr. Cooper concluded the presentation of the Department of Natural and Economic Resources by reviewing the types of projects conducted in North Carolina by the U.S. Corps of Engineers.

Mr. Milton Heath of the Institute of Government who has assisted the Committee throughout its deliberations provided some historical information and pointed out several legal questions in the area of water resources development. He described briefly the various statutory bodies that have functioned in this area over the years and cautioned the Committee to be aware of the different procedures employed by the U.S. Soil Conservation Service and the Corps of Engineers.

Colonel Homer Johnstone of the U.S. Army Corps of Engineers gave a presentation outlining the functions of the Corps. He explained the procedures employed by the federal government for approving and funding water resource projects and noted how state approval and funding techniques must mesh with those of the federal government. Colonel Johnstone concluded his remarks by calling for a comprehensive state plan for the development of water resources and the appropriate mechanisms for cooperating with the Corps to make the plan work.

Mr. John Morris, Senior Planning Analyst with the State Planning Office, told the Committee that his office was engaged in a joint study effort with the Department of Natural and

Economic Resources on the subject of water resource planning and development. He indicated his willingness to modify the study program in any way necessary to provide data and recommendations desired by the Committee.

The final background presentation was made by Mr. Richard Folsche of the U.S. Soil Conservation Service. Mr. Folsche described the programs conducted by SCS in North Carolina which consist primarily of small watershed projects.

Other persons making comments at this meeting and expressing their willingness to assist the Committee included Colonel George Pickett, Department of Natural and Economic Resources Delegate to the National Water Congress, Mr. James Stamey, Department of Human Resources, and Mr. Edwin Long, U.S. Army Corps of Engineers.

The Committee agreed that it would be necessary to call on the various agencies of State Government with expertise in this area for assistance and resolved to do so. Recognizing that the limited budget within which the Committee was forced to operate would preclude an extensive series of meetings and public hearings, the Committee resolved to address first the area of rivers and harbors and to deal with other topics as time and finances allowed.

The second meeting of the Committee was held January 9, 1976, at the Ramada Inn located at Nags Head, North Carolina. The Committee decided that because much of the material they were studying dealt with the coastal regions two meetings should

be held near the coast, enabling interested parties to appear before the Committee and the members to visit some of the water development projects under discussion. The second meeting was therefore held at Nags Head and the third, scheduled for later in the year, was planned for the Wilmington area.

Colonel George Pickett, who represents the Department of Natural and Economic Resources at the Water Resources Congress presented information and materials concerning the Wanchese Harbor (Shallowbag Bay) Project. Colonel Pickett reviewed the project as planned, explained why it was needed, and outlined the progress that had been made. Colonel Pickett and Mr. Peck Long of the U.S. Army Corps of Engineers were questioned with respect to delays in completion of the project. It was explained that changing federal requirements had necessitated a rejustification of the project and that some difficulty had been encountered in demonstrating the necessary benefit-cost ratio. The outlook for the future, however, is quite promising. Upon motion of Senator Smith, the Committee resolved to contact Secretary Harrington and request information concerning what the Committee could do to advance work on the Wanchese Harbor Project.

Also appearing with respect to this project was Mr. Ron Tillet, a member of the Dare County Board of Commissioners and a representative of the fishing industry in the area. Mr. Tillet stressed the need for completion of the project, both in terms of financial opportunity and navigation safety.

Mr. John Morris of the State Planning Office appeared again before the Committee with further details concerning the

study his office was undertaking in cooperation with the Department of Natural and Economic Resources. Mr. Morris presented an outline of the areas to be covered by the proposed study. He also distributed an inventory of water projects in North Carolina in various stages of completion, planning, and construction. A copy of this inventory may be found in Appendix III.

The Committee approved the drafting of an interim report by the staff to be submitted to the Chairman of the Legislative Research Commission pursuant to the requirements of House Joint Resolution 1195. The interim report was to contain no recommendations but merely outline the progress the Committee had made thus far in its deliberations.

The third meeting of the Committee was held on July 8 and 9, 1976, at the Holiday Inn at Wrightsville Beach. On the morning of July 8, the Committee was briefed on the projects planned or under construction along the coast in the area and then were taken on a helicopter tour to see the area which had been described. The Committee reconvened that afternoon for a series of presentations.

Mr. Robert Warwick, Chairman of the Wilmington Chamber of Commerce Port, Waterway and Beach Improvement Task Force discussed the current status of Wilmington Harbor and projected plans for improving and maintaining it. He also discussed plans for the development of the Northeast Cape Fear River. He called for the development of a legislative mechanism and administrative procedures concerning water resource development which would allow for the long-range management of the problems of Wilmington Harbor. A copy of Mr. Warwick's remarks may be found in Appendix IV.

Mayor Richard Kepley appeared and explained the problems confronting Carolina Beach. Mayor Kepley discussed the need for renourishment of the beach itself and for dredging of Carolina Beach Inlet. Mayor Kepley stressed that the area for which assistance was requested from the state was not undeveloped, but rather an urban center. A copy of Mayor Kepley's statement may be found in Appendix V.

The Mayor of Wrightsville Beach, Mr. Robert Sawyer, make the next presentation. Wrightsville Beach also suffers from a lack of funds to pay for desperately needed renourishment of the beach. Mr. Sawyer pointed out that state assistance is appropriate because of the widespread ownership of the land at Wrightsville Beach. He provided figures showing how citizens from across the state, and elsewhere, own much of the land there. A copy of Mayor Sawyer's remarks and the breakdown of property ownership may be found in Appendix VI.

Mr. Robert Shoffner, a member of the Wilmington Chamber of Commerce Port, Waterway and Beach Improvement Task Force, addressed the subject of North Carolina water resources in general. Within the category of "coastal waterways" he discussed estuarine productivity, fishery leadership, navigable channels, use of waterways, inlet stabilization, and waterway management. Within the category of "inland water resources," he discussed the Falls Lake and Randleman Lake Projects. A copy of his remarks may be found in Appendix VII.

Colonel Dan McDonald of the Department of Natural and Economic Resources made several brief comments concerning the earlier presentations. He felt compelled to agree with the expressed opinion that the state had been remiss in its responsibilities towards the coastal communities. He stated his belief that when presented with all the facts the General Assembly would be willing to take appropriate action. Colonel McDonald said that, in his opinion, the General Assembly had not been kept fully informed.

Colonel McDonald was again recognized as the first speaker on July 9, 1976, to inform the Committee of progress that had been made since the last meeting on the Wanchese Harbor (Shallowbag Bay) Project. He reported on funds which had been appropriated and grants which had been secured. While some delay had been occasioned by a lack of funds on the part of the Corps of Engineers, he felt that the prospects for completion of the project were good.

Mr. John Morris of the Office of State Planning presented the report which his office had prepared in cooperation with the Department of Natural and Economic Resources. This report addressed most of the problems being studied by the Committee and outlined various possible approaches to dealing with each problem. Mr. Morris noted that, as planned, the report was to have contained a discussion of projects under the auspices of the U.S. Soil Conservation Service. That section had not been completed, but he hoped to be able to make it available to the Committee before

they finished their deliberations. The report is contained in Appendix VIII.

Dr. David Adams, the newly appointed Secretary of the Department of Natural and Economic Resources, was introduced to the Committee and made several comments. He told the members of the Committee that several organizational changes had just been made within the Department. One of these changes elevated the functions of Colonel McDonald's division, dealing with water projects, to the Secretary level. He stated his hope that these changes would help provide the necessary mechanism for coordination of projects with the Corps of Engineers.

The Mayor of Surf City, Mrs. Lucille Gore, informed the Committee of the problem suffered by her home community: pollution of the estuarine waters because of an over-abundance of septic tanks. Putting in a centralized sewer system which would solve the problem cost more than the small community could afford. She expressed the opinion that assistance in such cases is a responsibility of the state.

Mr. Heath was called upon to discuss a legal problem raised by the federal requirements for Corps of Engineers projects. At an early stage in these projects the State is required to make a firm commitment to pay its share of the costs. The legality of one General Assembly taking action which binds a future General Assembly to some act is questionable. The best solution to this problem would be to attempt to satisfy the federal requirement with something less than a binding commitment. Colonel Johnstone

was asked to comment on the feasibility of such an approach. He stated that, unfortunately, no reliable prediction could be made. In one case, a moral commitment might be deemed sufficient; in another, it might not.

Mr. Roy Stevens, Chairman of the Carteret County Economic Development Council, made the final presentation of the meeting. He discussed the three types of water resource projects which exist in Carteret County: (1) U.S. Army Corps of Engineers' Projects, (2) small navigation projects, and (3) beach erosion projects. A copy of Mr. Stevens' remarks may be found in Appendix IX.

The fourth meeting of the Committee was held on October 1, 1976, in the Legislative Building in Raleigh. Mr. H. A. Smith, former Director of the Wake County Department of Natural Resources, presented a proposal dealing with watershed projects which receive federal assistance under Public Law 566. Mr. Smith urged the Committee to consider state cost-sharing for the non-federal portion of the cost of these projects and explained proposed legislation that he had drafted which would establish a framework for applying for state grants.

Following a discussion of Mr. Smith's presentation, the Committee reviewed a draft of the final report that had been prepared by the staff at the Committee's direction. After making several changes in the draft and directing several additions, the Committee gave the report tentative approval.

The Committee has also received a letter from Dr. David Adams, Assistant Secretary of the Department of Natural and Economic Resources. The letter responds, in part, to testimony received by the Committee requesting state aid for beach erosion projects. A copy of this letter may be found in Appendix XI.

FINDINGS

The Legislative Research Commission Committee on Water Projects Priorities, after considering the presentations made before it and evaluating current practices and procedures relating to the development and protection of North Carolina's water resources, makes the following findings:

1. Many coastal communities are in need of increased state assistance with respect to water projects.

Much of the testimony received by the Committee related to specific problems encountered by North Carolina's coastal communities in their efforts to have current projects completed or to protect or maintain beaches and waterways. In some instances, the state could be of aid merely by increasing communication between local interests and the appropriate federal agencies. In most cases, however, the help requested is financial.

The Committee has found that increased state aid to coastal water projects would have beneficial effects statewide. The economic benefits to be derived from improving harbors (Wilmington, Morehead City) or providing a site for a modern fish-processing industrial complex (Manteo-Shallowbag Bay) would be enjoyed statewide. Protection of our beaches and maintaining safe waterways enhances the recreational value of our coastland which may be enjoyed by all citizens of North Carolina. The property ownership of some beach communities is

spread so widely across the state as to disprove accusations that assistance to these communities inures to the benefit of a localized few.

The Committee feels that, on the whole, the requests for increased state assistance made by representatives of our coastal communities are well-founded.

2. The General Assembly has not been kept adequately informed of the needs of the coastal communities.

The members of the Committee found that some of the more severe problems being encountered by our coastal communities had not been brought to their attention during the time while the General Assembly was in session. Both Carolina Beach and Wrightsville Beach are in desperate need of funds to halt erosion and provide storm protection for the valuable property situated there. The General Assembly was never in a position to assess the priority of this need because there were no funds requested for this purpose in the Governor's proposed budget, although there was such a request in the budget request of the appropriate division of the Department of Natural and Economic Resources.

In the recent appropriation process, as every item receiving funds was scrutinized with extreme care, it cannot be determined whether or not these projects would have been funded. It is clear, however, that such pressing needs should have at least received consideration by the General Assembly.

Several of the individuals testifying before the Committee expressed their confidence that the General Assembly would deal

fairly with the coastal communities if all appropriate information was made available to the legislators. The Committee has found that, in the past, this information has not been provided.

3. <u>There has been no mechanism in state government for coordination of projects with the U. S. Army Corps of Engineers</u>.

A frequent criticism of state procedures concerning water projects heard by the Committee was that no procedural device existed for coordinating local interests with the activities of the U. S. Army Corps of Engineers. Although local demand for and support of a requested project is very important in determining whether or not the Corps will consider initiating a study, the Corps deals formally with the state. The three entities involved -- the state, the federal government, and the local interests -- must all work together to bring a contemplated project to reality. There must be free flow of communication among all three entities, and the state must also coordinate state approval and funding with federal approval and funding.

The Committee has found that the state has lacked an efficient mechanism for dealing with its share of this process. Responsibility for dealing with these projects lies within the Department of Natural and Economic Resources. Although competent personnel have been involved on a daily basis with these matters, they have not enjoyed sufficient "visibility" to enable them to communicate freely with the Corps and the local interests.

4. Organizational changes recently made within the Department of Natural and Economic Resources may alleviate the problem of providing coordination with the Corps.

At the third meeting of the Committee, Dr. David Adams, the newly-appointed deputy secretary of the Department of Natural and Economic Resources, was introduced to the members of the Committee. Dr. Adams told the Committee that several organizational changes had recently been made within the Department. One of these changes involved the level of departmental responsibility for water projects. Coordination of these projects will now be handled at the level of the secretary's office. This change may facilitate communication among the parties involved in any water project.

The Committee feels that this change may also be indicative of an increased emphasis on and awareness of the importance of water projects. The change has not been in effect long enough for the Committee to assess its effectiveness in resolving the problem of insufficient coordination with the Corps of Engineers, but the reorganization and the attitude it indicates were seen as encouraging by the Committee.

5. State procedures for approval of projects and for seeking appropriation of funds are inadequate with respect to rising costs for water projects and federal procedures for approval and funding.

The Office of State Planning, in cooperation with the Department of Natural and Economic Resources and the Office of State Budget, prepared a report entitled "Water Resource Development

Projects in North Carolina: State Participation in the Civil Works Program of the U. S. Army Corps of Engineers." (See Appendix VIII) This report deals specifically with several of the issues considered by the Committee.

One of the topics considered in the report is "Project Approval Procedures" (pp. 8-11). That section outlines the procedures utilized by the federal government and those currently being employed by the state. Several proposals and alternatives for changes in state procedures are set forth. One recommended change concerns letters of assurance of State financial participation. Federal regulations require that the State give assurance of financial participation in the project at an early planning stage. The report recommends that these letters, which are in effect approvals to continue the planning and design of projects, be issued by the Governor after a thorough review process within the Departments of Natural and Economic Resources and Administration.

When project planning is complete, and before construction can begin, federal law requires the state to enter into a contract for cost-sharing. This requirement for a contract was begun in 1970, after the passage of the state statute on this subject. Because state law does not specifically deal with the procedure for entering into these contracts, and because in some cases the contracts can commit the state to pay millions of dollars of future costs, the report recommends that state law be rewritten to provide a legal procedure to be followed in entering into the contracts, including some form of approval by the General Assembly. Two

alternative approaches to obtaining approval by the General Assembly are outlined in the report.

As the report explains, changes in federal law and increased costs of these projects have made current state procedures obsolete. The Committee has found that some revisions in these procedures are needed. This joint effort by several state agencies logically develops some of the options to be considered in revising the procedures.

5A. North Carolina has no statutory procedures for receiving, approving and assigning priorities to applications for state funds for the non-federal share of watershed projects.

The committee found that insufficient time and resources precluded a thorough examination of projects under the auspices of the Soil Conservation Service. Watershed projects under P.L. 566 fall within this category. Testimony received at the final committee meeting, however, was sufficient to point out the lack of any statutory formula for receiving, approving and assigning priority to applications for state funds for watershed projects. The Committee finds this lack to be significant.

6. Constitutional restraints on the contracting of debts should not inhibit efficient coordination with the Corps of Engineers.

With a few exceptions, mostly not pertinent to this study, the State of North Carolina cannot contract a general obligation debt without the approval of a statewide referendum. And a local

government cannot contract a general obligation debt without the approval of a local referendum. The only important exception (other than genuine emergencies) is that the state, or a local government, can borrow for all purposes up to two-thirds of the debts it retired in the previous year. (N. C. Constitution, Art. V, Secs. 3(1) and 4(2).) See Appendix X for text of constitutional provisions.

These constitutional provisions have a clear bearing upon raising state (or local) funds for water resource development projects. They have a possible bearing, that is examined below, on making state or local commitments to federal agencies concerning the state or local role in federal projects.

The options available legally to those interested in securing greater state and local financial support for water resources development appear to be as follows:

(1) To work to secure what they regard as a fair share of the two-thirds allowance for water projects.

(2) To seek state and local referenda approval for state or local water project bonds.

(3) To settle for something that would not be subject to the constitutional limitations on legal "debts," that is, some kind of moral commitment. The commitment to seek funding would be made more meaningful and would more likely be acceptable to federal water project agencies, if annual or biennial appropriations were consistently made in amounts closely approximating needs.

If the third ("moral commitment") option were adopted, there is another relevant constitutional requirement at the local level. Article V, Section 2(5) of the State Constitution restricts the use of local property tax levies to "purposes authorized by general law uniformly applicable throughout the state, unless the tax is approved" by referendum. This is not likely to be a significant limitation, however, since general laws have been enacted that empower cities to levy property taxes to support any authorized city function, and that empower counties to levy property taxes to participate in federal water resources development projects, and to support beach erosion and natural disaster projects, watershed improvement projects, and to participate in programs with the N. C. Ports Authority. (G.S. 153A - 149(c) and 160A - 209(a).) These tax authorizations, along with other authorized purposes, permit maximum annual levies of $1.50 per $100.00 appraised value.

In canvassing all conceivably applicable constitutional limitations, it might be noted that Article V, Sections 3(2) and 4(3) of the State Constitution prohibit the gift or loan of state or local government credit in aid of any individual, association or private corporation without referendum approval. This should not prove a barrier to any legitimate public projects, however.

Finally, there is a general principle -- as much of political necessity as of constitutional law -- that no legislative body can bind its successor. Water resource development projects

ought to be able to live within this commonsense limitation as well as any public undertakings.

Some federal agencies, notably the U. S. Army Corps of Engineers, require that state or local agencies agree to assume certain responsibilities in connection with federal water resources development projects. For example, the Corps of Engineers requires that a state or local agency undertake, among other things, to provide necessary easements and rights-of-way, to hold harmless the United States from damage claims, and to maintain the project after completion. North Carolina has enacted legislation that empowers the Environmental Management Commission to give these assurances in behalf of the state or its localities. (G.S. 143-215.41.)

The question arises: Are any commitments of this nature prohibited or limited by the State Constitution? The answer appears to be in the negative, although these relatively new constitutional provisions have not yet been interpreted by the courts. The constitutional limitations apply to "debts," which are defined as being incurred "when the state /or local government/ borrows money." (N.C. Const., Art. V, Secs. 3(3) and 4(5).) The previous State Constitution contained provisions on this subject that were less clear and that had been interpreted as placing constitutional restrictions upon commitments of the nature under discussion here. It appears that the language of the present constitutional provisions was selected in an effort to allow room for these sorts of commitments without requiring a referendum.

Since 1970 the Corps of Engineers has also required (pursuant to federal legislation) that a state or local sponsor contract to share in the cost of some elements of federal water resource developments. Federal law provides that these contracts are enforceable in federal court. Do these more binding commitments constitute "debts " which can be assumed only with the approval of a referendum of the people? Literally, again, the answer would appear to be in the negative, since this commitment does not necessarily entail "borrowing money."

RECOMMENDATIONS

The Legislative Research Commission Committee on Water Projects Priorities, after a complete review of the data it has collected, and in light of the findings it has made, makes the following recommendations:

1. <u>The Department of Natural and Economic Resources should provide the General Assembly with a complete inventory describing water resource projects in all stages of planning and construction.</u>

In the past, the low cost of the state's share of water projects made it feasible for the General Assembly to appropriate a lump sum to cover all expenses for water projects in the next biennium. Spiralling costs made such an approach unworkable. The General Assembly must have adequate data to anticipate which projects will require funding, and the extent of the required funding, during the biennium. Approaches to financing the non-federal share of water projects are discussed elsewhere in this report, but whatever approach is adopted, the General Assembly must be in a position to anticipate the financing needs.

Other benefits will be realized from a more complete briefing of the members of the legislature. The members of the Committee felt that many of the problems being encountered by the coastal communities should have received consideration during the past session of the General Assembly. By increasing the data presented to the legislators during the session, the Department of Natural and Economic Resources can more effectively guard

against crisis situations arising during the interim when funds can usually be made available only at the expense of other worthwhile programs.

2. The Department of Natural and Economic Resources should present legislation to the 1977 Session of the General Assembly establishing procedures for dealing with requests for state funds for watershed projects.

The Committee has found that North Carolina has no statutory framework for dealing with requests of this nature. As noted, insufficient resources made intensive study of this subject matter impossible. The Committee therefore feels that recommending legislation on the subject would be ill-advised. A sounder approach would be for the officials of the Department of Natural and Economic Resources to include with the legislation recommended to the General Assembly by them proposals on this topic. The Committee recommends that the Department do so.

3. The Department of Natural and Economic Resources and the Department of Administration should review approval and funding procedures for water projects and jointly recommend changes to the General Assembly.

The Committee found that the approval and funding procedures currently employed with respect to water projects are not adequate in light of changed federal requirements and increasing costs. The Committee noted that alternatives for altering these procedures were proposed in the report prepared jointly by the

Department of Natural and Economic Resources, the Office of Budget, and the Office of State Planning.

The Committee recommends that the Departments review current procedures, the proposed changes, and any other alternatives and present proposed changes to the 1977 General Assembly. Although both Departments had input in the changes recommended in the report, those proposals were developed prior to the organizational changes within the Department of Natural and Economic Resources. The new organization may cast a different light on proposed revisions of the procedures.

4. No constitutional amendments are recommended.

At this time there appear to be no constitutional barriers that prevent the state or local governments from continuing to provide the kinds of assurances that have been given pursuant to G.S. 143-215.41 in connection with needed water resource developments. If subsequent interpretations of the new constitutional provisions on public finance should identify any such barriers, the problems can be addressed at that time.

With somewhat less assurance it can be asserted that the new constitutional provisions probably do not stand in the way of state or local contracts for cost-sharing in federal water resource development projects, as required since 1970 by federal law, since the constitutional limitations apply literally only when the state or local government "borrows money." This appears to be the view of the Attorney General's office. Again, if

subsequent judicial interpretation indicates otherwise, the situation can be re-assessed at that time.

5. The present statutory provisions contained in G.S. 143-215.41 concerning assurances of state and local cooperation in Corps of Engineers' projects should be retained, with some modifications indicated by the findings of this study.

We see no need to eliminate any of the assurances of state and local cooperation presently authorized by G.S. 143-215.41. One or more of these assurances is required in connection with every Corps of Engineers' Water Resources Development Project and must be given by either state or local governments as a condition of the Corps' undertaking the project. G.S. 143-215.41 was enacted in 1969 in response to this continuing need, and we have found that there are no constitutional barriers to providing the existing statutory assurances.

Our findings also indicate authority is needed for at least one additional assurance and modifications are desirable in the procedures governing state and local participation under G.S. 143-215.40 and 143-215.41. (See Appendix X for text of sections.) On the basis of our hearings and the reports made to us by the Departments of Administration and Natural and Economic Resources, we believe that changes should be made in G.S. 143-215.40 and 143-215.41 along the following lines:

(a) The authority of the Environmental Management Commission to provide assurances of state

cooperation under G.S. 143-215.41 should be transferred to the Governor and the Secretary of DNER.

(b) The list of authorized assurances in G.S. 143-215.41 should be expanded to include contracts for cost-sharing, as now required by federal legislation.

(c) The provision that letters of assurance "irrevocably bind" the state and localities should be modified to be consistent with the qualified commitments currently undertaken.

(d) Some form of approval by the General Assembly or one of its agents should be required, at least for the larger commitments.

Some refinements in the details of these changes may be needed. We anticipate that the proposals forthcoming from the Departments of Administration and Natural and Economic Resources (see Recommendation 3 above) will cover the substance of these four recommendations in such form as those Departments deem appropriate.

6. Further study should be undertaken on the nature and extent of needs for additional state and local financial participation in water resource projects.

Alternative methods for financing water resource projects of all kinds is so broad and complex a subject that the Committee would have been able to give it only cursory treatment had it

expended all available time and resources to this single topic. The Committee, however, was able to devote only enough attention to this matter to conclude that the subject warranted extensive, in-depth examination.

The Committee recommends that a commission be established to conduct this study. The complexity of the matter makes it advisable to include among the members of the Commission persons with expertise in the area of public financing methods.

APPENDIX I

WATER PROJECTS PRIORITIES

Name	Business Address	Phone
Rep. Vernon G. James Co-Chairman	Route #4 Elizabeth City, N.C. 27909	(919) 330-5561
Sen. William G. Smith Co-Chairman	One N. Third St. Wilmington, N.C. 28401	(919) 763-4616
Rep. John M. Jordan	Saxapaw, N.C. 27340	(919) 376-3121
Rep. J. T. Pugh, Jr.	444 Sunset Avenue Asheboro, N.C. 27203	(919) 625-2171
Sen. Wesley Webster	Highway 311 Madison, N. C. 27025	(919) 548-9297

Paul Stock -- Committee Staff
Legislative Services Office
829-2578

Senator Willis P. Whichard -- Legislative Research Commission Member
Post Office Box 3843
Durham, North Carolina
682-5654

APPENDIX II

STATEMENT ON
CLEAN WATER BOND GRANTS

Presented by

W. E. Knight, Assistant Director
Division of Environmental Management
N. C. Department of Natural & Economic Resources

to the

Committee on Water Projects Priorities
Legislative Research Commission

October 24, 1975

The Clean Water Bond Act of 1971 provided funds for grants to local units of government to stimulate the construction and improvement of needed wastewater treatment plants, wastewater collection systems and water supply systems in order to provide the State's citizens a clean and healthy environment and an adequate supply of safe water for domestic consumption. The funds, to be derived from the sale of Clean Water Bonds, were established in three accounts: pollution control account $75,000,000, water supply systems account $70,000,000 and contingency account $5,000,000. Of the $75 million in the pollution control account $50,000,000 was available for state-wide matching grants for wastewater treatment works projects and $25,000,000 was allocated by county for grants to assist with wastewater collection system projects. The funds allocated to the pollution control account are to be used exclusively for the purpose of making grants of 50% of the non-federal share of the total eligible project costs not to exceed 25% of the total eligible project cost. In this connection, the Federal share is now 75% of the eligible project cost, thus making the State share 12.5%.

Federal construction grant funds allocated to North Carolina for F. Y. 75 and F. Y. 76 are $70.4 million and $110.3 million respectively. To provide a State grant of 12.5% to currently approved projects and projects necessary to use these Federal funds would require $31.4 million in State grant funds. In as much as projects requiring $30.5 million in State grant funds

have already been approved, this would require a total of $61.9 million in State funds to fully match all the eligible projects. Based on funds presently allocated to North Carolina through F. Y. 76, this represents a shortfall of state matching funds in an amount of $11.9 million. In legislation presently pending before the Congress, which changes the formula for allocating funds to States, North Carolina would receive an additional $94 million for F. Y. 76. State matching for this amount would require $15.6 million in State funds. If the additional $94,million is in fact allocated to North Carolina to be committed to projects prior to September 30, 1977, then the shortfall in State grant funds would be $27.5 million.

The provisions of the Federal Water Pollution Control Act Amendments of 1972 (P.L. 92-500) requires municipalities and industries to meet more stringent treatment requirements than required by previous provisions of State and Federal law. These requirements together with the effects of inflation have significantly increased the cost of wastewater treatment works. These increases will make it more difficult for local governments to finance their share even with the 12.5% State grant and will place a severe strain on local resources if some provisions is not made for continuing the program.

A 1974 survey of need for municipal wastewater treatment facilities, conducted in conjunction with EPA and local governments, indicated that a total of $1.04 billion would be necessary to meet the 1977 and 1983 federal goals for treatment facilities and interceptor sewers. In addition, $340 million would be needed for collection sewers. These estimates are based upon

1973 construction costs and projected 1990 population estimates. They are also based upon the facilities required to meet the present state and federal effluent limitations.

Secretary Harrington in a letter addressed to Representative James outlines several alternatives to this problem as follows:

1. Discontinue the state grant award when the present funds are fully committed.
2. Reduce the match ratio to spread the remaining uncommitted funds over the biennium.
3. To seek additional bond funding, either legislative bonds or a new bond vote.
4. To request appropriations.
5. To request conditional appropriation of F. Y. 75-76 credit balance or revisions.

Prompt legislative action is needed in this area. The Division of Environmental Management considers the continuation of the State grant program essential to the continued success of its water pollution control program. Accordingly, the Division of Environmental Management would recommend that the Legislature authorize a bond referendum and that this referendum be authorized at the earliest possible date. Considering this matter realistically, it may be after July 1, 1977 before such an issue can be brought to a vote by the people. If this is the case, the General Assembly may likewise give consideration to appropriating such funds as are determined to be necessary to maintain continuity in the program with the condition that any funds expended from such appropriations will be repaid to the general fund from the sale of any bonds authorized as the result of a vote of the people. We will be pleased to assist in any studies of this matter to the fullest of our capability.

CLEAN WATER FUND - $150,000,000

LIMITATION: $30,000,000 PER FISCAL YEAR, AGGREGATE, FOR ALL GRANTS, INCLUDING CONTINGENCY UNLESS ADVISORY BUDGET COMMISSION APPROVES EXCESS TO PROVIDE REQUIRED STATE'S MATCHING FOR WASTEWATER TREATMENT WORKS PROJECTS

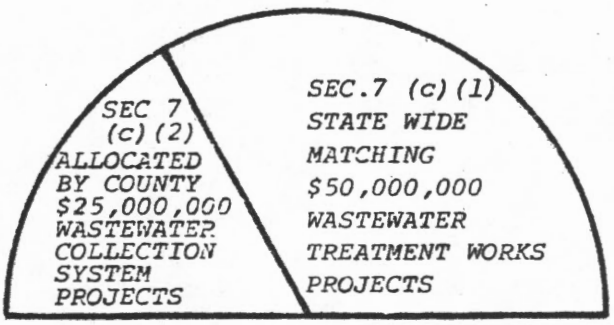
POLLUTION CONTROL ACCOUNT

$75,000,000

GRANTS TO UNITS OF GOVERNMENT

MAXIMUM 25% OF TOTAL ELIG. PROJECT COSTS, OR 50% OF NON-FEDERAL SHARE, UNLESS EXCESS UP TO 5% APPROVED BY ABC

LIMITATION: $5,000,000 PER FY, AGGREGATE, FOR WASTEWATER COLLECTION FROM COUNTY ALLOCATED FUNDS



FUNDS ADMINISTERED BY:
DEPARTMENT OF ADMINISTRATION

APPLICATIONS REVIEWED AND PRIORITIES DETERMINED BY:
ENVIRONMENTAL MANAGEMENT COM.
SEC. 7(c)(1)
SEC. 7(c)(2) -Semi-Annally

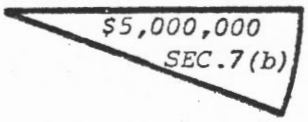
CONTINGENCY ACCOUNT

$5,000,000

1. ADMINISTRATION - $1,500,000
   a. DEPARTMENT OF ADMINISTRATION
      ESTIMATE - TO ABC BY JUNE 1 FOR NEXT FY
   b. ENVIRONMENTAL MANAGEMENT COMMISSION
      ESTIMATE TO ADM. BY MAY 15 FOR NEXT FY
   c. COMMISSION OF HEALTH SERVICES
      ESTIMATE TO ADM. BY MAY 15 FOR NEXT FY

2. COSTS - SALE OF BONDS

3. GRANTS (APPROVED BY ABC IF THERE ARE COMPELLING REASONS TO EXCEED FY ALLOCATIONS)



FUNDS ADMINISTERED BY:
DEPARTMENT OF ADMINISTRATION

BOND SALES BY:
LOCAL GOVERNMENT COMMISSION

APPLICATIONS REVIEWED AND PRIORITIES DETERMINED BY:
ENVIRONMENTAL MANAGEMENT COM. AND/OR COMMISSION OF HEALTH SERVICES

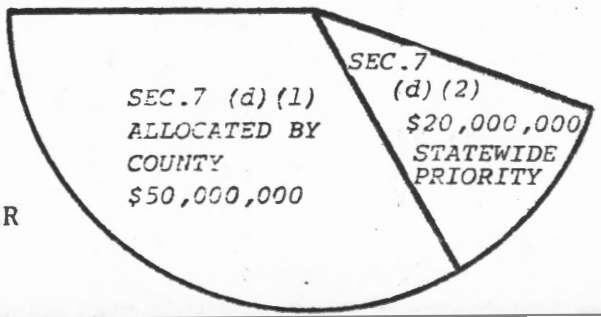
WATER SUPPLY SYSTEMS ACCOUNT

$70,000,000

GRANTS TO UNITS OF GOVERNMENT

MAXIMUM 25% OF TOTAL ELIG. PROJECT COSTS, UNLESS EXCESS UP TO 5% APPROVED BY ABC

LIMITATION: $10,000,000 PER FY, AGGREGATE, FROM COUNTY ALLOCATED FUNDS



FUNDS ADMINISTERED BY:
DEPARTMENT OF ADMINISTRATION

APPLICATIONS REVIEWED AND PRIORITIES DETERMINED BY:
COM. OF HEALTH SERVICES
SEC. 7(d)(2)
SEC. 7(d)(1) -Semi-Annually

COUNTY ALLOCATIONS - CLEAN WATER BOND ACT

COUNTY	WATER SUPPLY	WASTEWATER COLLECTION	COUNTY	WATER SUPPLY	WASTEWATER COLLECTION
Alamance	948,061	474,030	Johnston	607,401	303,701
Alexander	191,517	95,758	Jones	96,211	48,106
Alleghany	80,027	40,013	Lee	299,751	149,875
Anson	231,087	115,544	Lenoir	543,126	271,563
Ashe	192,550	96,275	Lincoln	321,543	160,771
Avery	124,507	62,253	McDowell	301,531	150,766
Beaufort	353,990	176,995	Macon	155,331	77,665
Bertie	201,965	100,983	Madison	157,446	78,723
Bladen	260,495	130,247	Martin	243,307	121,653
Brunswick	238,319	119,159	Mecklenburg	3,489,294	1,744,647
Buncombe	1,427,138	713,569	Mitchell	132,299	66,149
Burke	593,893	296,947	Montgomery	189,559	94,779
Cabarrus	734,240	367,120	Moore	384,175	192,087
Caldwell	557,835	278,917	Nash	581,674	290,837
Camden	53,650	26,825	New Hanover	816,559	408,279
Carteret	310,927	155,464	Northampton	236,213	118,107
Caswell	187,473	93,737	Onslow	1,014,608	507,304
Catawba	894,057	447,028	Orange	567,752	283,876
Chatham	290,768	145,384	Pamlico	93,141	46,571
Cherokee	160,663	80,332	Pasquotank	263,909	131,954
Chowan	105,902	52,951	Pender	178,560	89,280
Clay	50,964	25,482	Perquimans	82,162	41,081
Cleveland	713,845	356,922	Person	254,956	127,478
Columbus	461,791	230,896	Pitt	727,068	363,534
Craven	615,440	307,720	Polk	115,455	57,728
Cumberland	2,086,182	1,043,091	Randolph	751,251	375,625
Currituck	68,634	34,317	Richmond	392,449	196,225
Dare	68,821	34,410	Robeson	834,721	417,360
Davidson	940,829	470,415	Rockingham	712,329	356,165
Davie	185,506	92,753	Rowan	885,812	442,906
Duplin	374,012	187,006	Rutherford	465,727	232,863
Durham	1,305,386	652,693	Sampson	442,281	221,141
Edgecombe	514,959	257,479	Scotland	264,942	132,471
Forsyth	2,108,870	1,054,435	Stanly	421,306	210,653
Franklin	263,869	131,935	Stokes	233,980	116,990
Gaston	1,460,186	730,093	Surry	505,848	252,924
Gates	83,864	41,932	Swain	77,341	38,670
Graham	64,560	32,280	Transylvania	193,947	96,973
Granville	322,330	161,165	Tyrrell	37,445	18,723
Greene	147,253	73,627	Union	538,305	269,153
Guilford	2,839,302	1,419,651	Vance	321,631	160,816
Halifax	530,139	265,070	Wake	2,247,642	1,123,821
Harnett	488,650	244,325	Warren	155,547	77,774
Haywood	410,365	205,183	Washington	138,113	69,057
Henderson	421,129	210,564	Watauga	230,261	115,130
Hertford	231,491	115,745	Wayne	840,289	420,145
Hoke	161,706	80,853	Wilkes	487,243	243,622
Hyde	54,810	27,405	Wilson	565,578	282,789
Iredell	710,312	355,156	Yadkin	242,018	121,009
Jackson	212,443	106,222	Yancey	124,251	62,125

REVISED ESTIMATED ADDITIONAL STATEWIDE GRANT FUNDS NECESSARY TO PROVIDE 12.5% STATE GRANT FUNDS THROUGH FISCAL YEAR 1977.

October 23, 1975

The original estimate has been revised as follows and is based on a F. Y. 1976 appropriation of $110.3 million plus an increase of $94 million:

State Grants Approved -	$30,529,857
33 Projects Approved for Federal Grants & Eligible for State Grant Awards (Est. eligible cost $27,764,070)	3,470,509
$56,923,192 F. Y. 75 Appropriations Not Approved by EPA & Eligible for 12.5% State Grants -	9,487,199
$110,345,000 F. Y. 76 Appropriation Eligible for 12.5% State Grants -	18,390,833
Sub-Total - - -	$61,878,398
Assume $94 Million Additional F. Y. 76 Appropriation Eligible for 12.5% State Grants -	$15,666,667
Assume $75 Million Appropriation for F. Y. 77 Eligible for 12.5% State Grants -	12,500,000
Total Statewide Grant Funds -	$90,045,065
	-50,000,000
Est. Additional Funds Required to Supplement EPA Funded Projects	$40,045,065

It should be noted that other Federal Agencies have funds available and are making grants for wastewater treatment works projects which are eligible for State grant funds. The amount of such grants are not available and are not included in this report.

APPENDIX III

CIVIL WORKS PROJECTS IN NORTH CAROLINA

1. Completed

Navigation	$ 14,326,652
Beach Erosion and Hurrican Protection	2,619,645
River Basin Studies	746,750
Small Watershed Projects	17,217,520
Flood Control Projects	3,825,793
Flood Plain Information Studies	1,073,044
Flood Insurance Agency Studies	557,100
Total Completed	40,366,504

2. Studies Underway

Flood Insurance Agency Studies	889,500
Flood Hazard Information Studies	759,000
Flood Plain Management Studies	60,000
River Basin Studies	8,591,600
Total Studies Underway	10,300,100

3. Projects Under Construction

Flood Control	51,405
Multi-Purpose	157,909,000
Small Watershed Projects (P.L.566)	37,967,361
Total Projects Under Construction	195,927,766

4. Maintenance/Dredging Operations 9,216,500

5. Projects in the Planning Stage

Beach Erosion and Hurricane Protection	16,000,000
Navigation	61,835,156
Flood Control Projects	6,632,421
Multi-Purpose Projects	88,200,000
Small Watershed Projects	16,312,715
Total Projects in the Planning Stage	188,980,292

Note: These figures are total project costs. A breakdown into federal, state, and local shares is not now available. The specific projects making up these totals are listed by category on the following pages. All information compiled by the Department of Natural and Economic Resources in December 1975.

CIVIL WORKS PROJECTS

1. Completed

NAVIGATION

Project	Cost	Completed
Atlantic	$ 172,477	1972
Atlantic Beach Channels	18,501	1966
Avon Harbor	74,096	1965
Beaufort Harbor	118,292	1966
Buxton Harbor	4,200	1975
Cape Fear River	1,147,861	1970
Cedar Island Bay	49,850	1966
Channel to Bogue Inlet	12,615	1965
Channel from Pamlico Sound to Rodanthe	42,029	1965
Collington Creek	3,400	1968
Davis	18,500	1975
Dawson Creek	22,327	1972
Drum Inlet	108,617	1972
Harkers Island	65,542	1970
Lockwoods Folly Inlet	49,749	1965
Neuse River	447,648	1966
Neuse River	44,582	1966
Neuse River above New Bern	60,000	1970
New Topsail Inlet	108,145	1967
Northeast Cape Fear River	52,083	1965
Ocracoke Inlet	346,240	1971
Old Canal, Turnagain Bay, Long Bay	21,500	1970
Pembroke Creek	60,000	1975
Rollinson Channel	589,105	1966
Silver Lake Harbor	106,000	1969
Stumpy Point Bay	18,000	1975
Stumpy Point Bay	268,381	1967
Topsail Inlet & Surf City	131,600	1967
Uniflite Canal	87,500	1972
Waterway Connecting Pamlico Sound and Beaufort Harbor	216,787	1966
Wilmington Harbor	582,200	1973
Wilmington Harbor	7,644,000	1972
Wrights Creek	64,825	1965

BEACH EROSION AND HURRICANE PROTECTION PROJECTS

Atlantic Beach		1970
Avon Harbor	55,373	1974
Fort Macon	1,520,000	1970
Long Beach	62,500	1973

BEACH EROSION AND HURRICANE PROTECTION PROJECTS (continued)

Project	Cost	Completed
Ocean Isle Beach	$ 35,000	1975
Topsail Beach	30,000	1974
Wrightsville Beach	855,563	1965
Yaupon Beach	61,209	1973
RIVER BASIN STUDIES		
Santee River System	321,750	1973
Yadkin-Pee Dee River Basin	425,000	1974
SMALL WATERSHED PROJECTS (PL 566)		
Ahoskie Creek	1,146,620	1966
Back Swamp	1,151,400	1974
Bear Creek	1,268,500	1969
Broad Creek	1,647,800	1966
Caw Caw Swamp	825,000	1969
Conetoe Creek	2,291,000	1971
Cutawhiskie Creek	760,900	1966
Dunn Swamp-Cedar Branch	1,810,500	1970
Flea Hill	1,447,300	1973
Grindle Creek	1,187,800	1966
Gum Neck	968,200	1969
Johnston's Milltail	324,900	1967
Lyon Swamp-White Oak Swamp	1,144,900	1969
Moccasin Creek	411,000	1966
Mosley Creek-Tracey Swamp	464,900	1969
Pollock Swamp	366,800	1966
FLOOD CONTROL PROJECTS		
Broad Creek	283,846	1972
Buck Creek	327,903	1969
Filberts Creek	30,000	1969
Gap-Way Swamp	450,697	1968
Gardners Creek	54,596	1970
New River	580,977	1970
Old Field Swamp	119,400	1968
Pungo Creek	582,270	1970
Pungo River	231,665	1968
South Creek	163,094	1969
Swift Creek	611,096	1965
Tar River-Princeville	390,249	1967

FLOOD PLAIN INFORMATION STUDIES (Flood Hazard Information)

Project	Cost	Completed
Andrews		1966
Boone	$ 5,000	1967
Chapel Hill	30,000	1970
Charlotte (3 vols.)	79,000	1971
Charlotte	88,000	1967
Clarks Creek	17,900	1975
Durham	25,353	1968
Eden	38,000	1974
Elizabeth City	27,000	1973
Elkin-Jonesville	22,000	1967
Fayetteville	33,400	1970
Franklin, Granville & Vance Cos.		1975
Gastonia	46,000	1970
Goldsboro	35,000	1972
Greensboro	22,455	1966
Greenville		1975
Jacksonville	17,500	1969
Kinston	30,000	1972
Lenoir	25,500	1970
Lexington	12,000	1965
Louisburg	16,086	1968
McDowell Co. (2 vols.)	46,800	1972
Morganton (2 vols.)	34,500	1970
New Bern	11,700	1969
Raleigh	15,643	1965
Research Triangle-Burdens Creek	17,500	1972
Research Triangle-Northeast & Kitt Creeks	30,000	1973
Roanoke Rapids	30,000	1973
Robbinsville		
Rocky Mount	23,000	1969
Rosman		1971
Salisbury	30,000	1973
Sanford	28,000	1973
Shelby	36,000	1975
Smithfield	31,200	1972
Statesville	59,000	1975
Sylva		1966
Tar River	30,000	1975
Tarboro	17,042	1965
Washington	11,135	1965
Waynesville-Hazelwood		1970
Wilkesboro-N.Wilkesboro	23,500	1971
Winston-Salem	27,830	1967

FLOOD INSURANCE AGENCY STUDIES

Project	Cost
Asheville	
Atlantic Beach	$ 12,500
Beaufort	10,000
Belhaven	4,000
Buncombe County	
Carolina Beach	8,000
Carteret County	
Chapel Hill	
Charlotte	310,000
Durham	
Fayetteville	5,000
Franklin	
French Broad River	
Gastonia	8,600
Goldsboro	
Greensboro	50,000
Holden Beach	7,500
Kill Devil Hills	3,000
Long Beach	4,500
Manteo	15,000
Mecklenburg County	35,000
Nags Head	10,000
Ocean Isle Beach	6,000
Raleigh	
Research Triangle	5,000
Rosman	
Southern Shores-Dare County	10,000
Surf City	9,500
Washington	18,000
Washington Park	6,500
Wrightsville Beach	20,000

2. Studies Underway

FLOOD INSURANCE AGENCY STUDIES

Cape Carteret	12,000
Durham	76,000
Eden	17,000
Edenton	16,000
Elizabeth City	24,000
Emerald Isle	12,500
Fayetteville	31,000
Greenville	17,000
Madison	19,000
Mayodan	19,000

FLOOD INSURANCE AGENCY STUDIES (continued)

Project	Cost
McDowell County	
Morehead City	$ 15,000
Nash County	71,000
New Bern	19,000
New Hanover County	56,000
Newport	14,500
Raleigh	58,000
Roanoke Rapids	18,000
Rocky Mount	38,000
Southport	15,000
Tarboro	21,000
Wake County	276,000
Wilmington	22,000
Windsor	12,000
Yaupon Beach	10,500

FLOOD HAZARD INFORMATION STUDIES

Charlotte	110,000
Charlotte	200,000
Durham	45,000
Mecklenburg County	200,000
Morganton	40,000
Statesville	59,000
Transylvania	
Winston-Salem	105,000

FLOOD PLAIN MANAGEMENT STUDIES

Durham-Ellerbe Creek	25,000
Rocky Mount-Cokey Swamp	20,000
Reidsville-Little Buffalo Creek	15,000

RIVER BASIN STUDIES

Cape Fear River	844,000
Chowan River Basin	560,000
Eastern N.C. above Cape Lookout	658,000
Kanawha River Basin	2,898,000*
Neuse River	635,000
Northeast Cape Fear	85,500*
Roanoke River & Trib.	440,000
Santee River System	891,000
Sugar Creek Basin	565,000
Tar-Neuse River System	665,100
Tar Pamlico River Basin	350,000

*Study activity complete. Review draft submitted.

3. Projects Under Construction

FLOOD CONTROL

Project	Cost
Lake Phelps	$ 51,405

Multi-Purpose

Falls Lake	80,788,000
B. Everett Jordan Lake	77,121,000

Small Watershed Projects (PL 566)

Bryant Swamp	41,350
Cane Creek	3,888,481
Coddle-Coldwater-Dutch Buffalo Creeks	70,000
Crabtree Creek	5,483,000
Deep Creek	2,643,700
Dutchman Creek	2,266,700
Hobbsville-Sunbury	1,328,000
Jacob Swamp	1,484,900
Little Contentnea Creek	4,436,300
Little Yadkin River	1,129,000
Meadow Branch	348,700
Muddy Creek	1,424,000
South Yadkin	40,000
Stewarts Creek - Lovills Creek	2,395,600
Swift Creek	5,424,000
Tallulah Creek	1,125,800
Town Fork Creek	2,563,800
Tri Creek	40,000
Upper Bay River	1,834,030

4. Maintenance/Dredging Operations

AIWW	1,648,700
Beaufort Harbor	172,000
Channel Back Sound to Cape Lookout Bight	117,900
Cape Fear River above Wilmington	445,500
Dismal Swamp Canal	493,000
Drum Inlet	227,400
John H. Kerr Reservoir	1,557,300
Little River Inlet	100,000
Manteo (Shallowbag) Bay	1,049,100
Morehead City Harbor	1,532,000
Shallotte River	73,000

Maintenance/Dredging Operations (continued)

Project	Cost
Silver Lake Harbor	$ 141,000
W. Kerr Scott Dam & Reservoir	412,000
Wilmington Harbor	1,247,600

5. Projects in Planning Stage

BEACH EROSION & HURRICANE PROTECTION

Bogue Banks	244,000
Carolina Beach & Vicinity	15,700,000*
Fort Fisher	56,000

NAVIGATION

AIWW Bridges	23,000
Beaufort Inlet Jetties	22,009,000
Belhaven Harbor	9,000
Bogue Inlet	137,000
Calico Creek	5,000
Cape Fear River-Acme to Fayetteville	142,000
Carolina Beach	213,000
Corncake Inlet	140,000
Little River Inlet	14,400,000
Lockwoods Folly & Shallotte River Inlets	19,245
Manns Harbor	23,000
Manteo (Shallowbag) Bay	20,283,000
Morehead City Harbor	3,910,000
Neuse River	13,311
New River Inlet	332,000
Roanoke River	73,600
Wilmington Harbor N.E. Cape Fear	103,000

FLOOD CONTROL PROJECTS

Black River	194,000
Conoho Creek	366,000
Deep Creek	42,900
Fairfield Drainage	645,697
Green Mill Run	61,000
Hominy Swamp	417,600
Joyce Creek	238,000
Leiths Creek	79,405
Lumber River	410,000
Mackay Creek	584,000

*Construction approximately 30% complete. Remainder inactive.

FLOOD CONTROL PROJECTS (continued)

Project	Cost
Moyock Creek	$ 219,400
Parkers Creek	84,219
Richardson Creek	85,700
Rockfish Creek	867,000
Scuppernong River	174,000
Sugar and Briar Creeks	1,000,000
Swift Creek	19,500
Thoroughfare Swamp	596,000
Tranters Creek	551,000

MULTI-PURPOSE PROJECTS

Howards Mill Lake	21,000,000
Randleman Lake	23,600,000
Reddies River Reservoir	22,200,000
Roaring River Lake	21,400,000

SPECIAL PROGRAMS

Aquatic Plant Control

SMALL WATERSHED PROJECTS (PL 566)

Bear Swamp	36,435
Country Line Creek	5,862,750
Dutchman Creek	1,582,400*
Second Broad River	8,736,580
Stoney Creek	94,550

*Second phase of project.

APPENDIX IV

Remarks of Robert Warwick

Gentlemen,

We appreciate very much your taking the time during the summer vacation period to come to Wilmington to review our situations regarding our beaches and port development. I know that you have seen problems that we are facing during your helicopter tour this morning. Most of you have also been on a boat tour of the Wilmington Harbour. Therefore you are familiar with some of the problems that we are facing here in Wilmington. It is my purpose to illustrate the importance of the Wilmington Harbour and the vital need for an adequate state resource management capability. During my talk if you have any questions, please do not hesitate to interrupt me at any time. If any of the points that I attempt to make are not clear to you, please ask me to explain it further. I will be talking about two specific examples--the Wilmington Harbour and the Northeast Cape Fear River.

slide 1

The Wilmington Harbour is the third deepest on the Eastern Seaboard with a 38 foot channel running for 26 miles from Southport to the State Ports Authority docks in Wilmington. The channel depth lessens above the State Ports Docks to the terminus of the harbour channel in the Northeast Cape Fear River.

slide 2

The Wilmington Harbour is foremost among the two major ports in North Carolina. Here are some facts about the impact of the Wilmington Harbour on our community, SENCland and the State of North Carolina.

Deep draft commerce increased 2.3 times from 1965 to 1973 and barge traffic for the same period nearly doubled. Altogether the annual totals are at least 10 million tons.

Slide 3 With the energy crunch in 1974 fewer ships came to Wilmington--840 in all compared with 974 in 1973. But they carried more tonnage, an increase of 90,000 tons over 1973. That is an indication of the increasing size of the ships.

A recent Department of Transportation study shows that the Slide 4 Ports are significant in stimulating the local economy. A total of 25 firms in the Wilmington area were influenced by the Port in thier choice of location. These firms employ 22% of all of the people working in New Hanover in 1972.

The same study found that each ton of cargo moving through the Wilmington and Morehead city harbours generated a total of $76 00 in personal income to North Carolinians. More than 32,000 jobs are directly or otherwise dependent upon Port facilities.

Slide 5 Another study finding is that additional exports will be needed to balance import traffic if the growth of the Port is to continue well into the future. This can come from industrial growth in Wilmington and other principal North Carolina cities. All of this is good for the national balance of payments.

The Department of Transportation study also estimates that the State and local revenue that results from the personal income generated through the Ports of North Carolina is in excess of 21 million dollars per year. Therefore, our State and local governments receive a significant amount of their revenue through the economic

impact of the Ports.

The Department of Transportation study also indicates that approximately 30% of the imports destined for North Carolina are handled by Ports in other states. The data shows that the North Carolina Ports handle only about 56% of the exports produced in North Carolina. This represents an opportunity for the North Carolina Ports to obtain significant additional business.

Among the industries that have located in the Wilmington area during recent years because of the Port facilities include Hercules, W. R. Grace, Ideal Cement, DuPont, Pfizer, General Electric, and others. As you can see from this list of bluechip industries, the Port has had a direct economic impact on our area and the State.

Slide 6

The Wilmington Harbour is one of the largest bulk liquid Ports on the East Coast. The Wilmington Harbour has storage capacity for 3.3 Billion gallons of liquid. This bulk liquid storage capacity becomes increasingly important as the gasoline and oil imports become more significant.

Slide 7

It must also be pointed out that the Wilmington Harbour handled approximately 10 million tons of cargo last year as compared to 1 million tons handled at Morehead City.

Through steady development of the Harbour channel, Wilmington has become a major Port. The Harbour development has been carried out consistently over the years.

10

Charts from the early 1800's indicate a controlling depth of 7 feet in the river channel and 20 feet across the ocean bar. Congress authorized the first navagation improvements by the Corps of Engineers in 1829. Channel improvements have taken place as follows:

20 feet - 1890

30 feet - 1930

32 feet - 1945

34 feet - 1950

38 feet - 1962

slide 8

The Corps of Engineers' records indicate that the numerous techniques have been used to reduce the shoaling rate in the Harbour. Among the techniques used by the Corps of Engineers include the following:

A. Pile dikes have withheld the flow of dredge material from the channel.

B. The strategic location of dredge materials to form an island chain to encourage the channel flow is another method.

C. The anchorage basin beside the State Ports Authority has become an effective sediment trap.

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The result has been a shoaling rate of a little over 1 million cubic yards annually. By comparison the rate for Savannah Harbour which handles a comparable tonnage is 10 million cubic yards annually. Although the channel in Wilmington is 30 miles long, it is less expensive to maintain the Wilmington Harbour than it is to maintain the Savannah Harbour.

The Corps of Engineers is preparing an environmental impact statement on maintenance dredging which must and will be completed before further work is required.

The thrust of Federal policy for the past several years has been to continue the Federal role of implementation while the State increasingly defines policy, sets priorities and establishes guidelines for the various projects. In the case of the Wilmington Harbour, the State legislative mechanism is unable to commit the State beyond the current legislative session, creating a piecemeal approach to Harbour maintenance.

Slide 80

The funding of dike disposal areas has created a cost to the State which did not exist before. There is also an expanded commitment to future action and new choices to be made.

At a cost of $700,000 the State is funding the construction of dikes on Eagle Island to last for a 10 year period. This disposal area will hold the bulk of the dredge materials.

Slide 11

There will be a need to provide dike disposal areas downstream. The environmental impact statement study, which is underway, will pose the choices to be made. The requirements promise to be expensive, but they are still undefined.

There is a need for a comprehensive long-term commitment to Harbour maintenance that is integrated and cost effective rather than piecemeal and expensive. The project is worth the investment and the State should be able to commit itself to the development of the Harbour.

The Northeast Cape Fear River has made a minimal contribution of shoaling materials over the years. The records from 1920 to 1968 indicate 60 million cubic yards of shoal material have accumulated over a 50 year period. About 43 million cubic yards have been trapped in the anchorage basin and 17 million in the river channel. This experience means than less than 8% of the estuarine area has been required for disposal of dredge materials. The total is 1,900 acres out of 24,000 acres in the Lower Cape Fear River estuary.

There is a division of responsibility for maintenance. The Corps of Engineers maintains the navigation channel at Federal expense while the State is the sponsor, and is required to provide land for disposal areas and the cost of docking.

In the mid 1950's the Corps of Engineers was directed to determine disposal area requirements for a 50 year period and obtain easements. The State then deeded the bottom of the Cape Fear River to the Corps for disposal purposes.

The Fish and Wildlife Coordination Act of 1958 required coordination of all new projects and improvements to existing projects with all concerned Federal and State agencies. These agencies signed a memorandum of understanding for the Harbour in 1965 to build dikes in the channel's edge during maintenance dredging.

The implementation of the National Environmental Policy Act (NEPA) did'nt halt the maintenance dredging in 1970 but caused it to be deferred in 1971. Maintenance work has subsequently been done on a regular basis.

Slide 12

There has been a long-standing need to expand the Wilmington Harbour Channel up the Northeast Cape Fear River. Industrially zoned land borders the river's edge and both Hercules and General Electric have major operations there. Institutional mechanisms for environmental safeguards are also in place.

Slide 13

The plan for development of the Northeast Cape Fear River includes:

1. Widening the channel beds by 100 feet at the present depth of 38 feet on the West side of the Cape Fear River Channel.

2. Deepening the ship channel from 32 to 35 feet between Castle Street and the Hilton Railroad Bridge, a distance of about 2.4 miles.

3. Widening the turning basin 0.6 miles above the mouth of the Northeast Cape Fear River by 100 feet at a depth of 35 feet along the East side of the ship's channel.

4. Deepening and widening the existing ship channel to the Northeast Cape Fear River from 25 to 35 feet deep and from 200 feet wide to 250 feet from the Hilton Bridge; extending 1.66 miles upstream, including deepening the existing turning basin 1.25 miles upstream at the Hilton Bridge to 35 feet and widening an additional 100 feet; and extending the Wilmington Harbour project up the Northeast Cape Fear River from river mile 3 to mile 8, including a turning basin 35 feet deep by 900 feet square. The proposed channel generally will follow natural deep water.

Slide 14

5. Acquiring conservation rights to a critical ecological zone which consists of wetland areas attendant to the Northeast Cape Fear River from about mile 3 to fishing creek on the West bank and on the East bank from Smith Creek to mile 8.

The Corps of Engineers will complete a feasibility study of this project and forward it to Congress this year. The State must assume several responsibilities before the project can proceed:

Slide 15

1. Diking costs. Part of the non-federal sponsor's role is to provide the cost of dikes and land for disposal. Uncertain State funding can end this project.

2. Environmental costs. The cost-sharing agreements may obligate the State to participate in the cost of environmental safeguards. There is a total of 8,000 acres of wetlands in the vicinity of the expanded channel and they must be preserved if the project is to go forward.

3. Ability to commit. Currently the State is unable to commit its resources beyond the pending legislative session. This may stall or eliminate the project.

Slide 16

The expansion of the Wilmington Harbour up the Northeast Cape Fear River is essential to the long-range development of the Wilmington Port and to the economic growth of the Wilmington area. There are 3,000 acres of ~~is sufficient~~ property suitable for industrial development along the Northeast Cape Fear River to insure the continued economic growth of our area of the State if the Harbour is extended up the Northeast Cape Fear River.

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Slide 18

The presence of the Wilmington Harbour is enigmatic to industry. If its proper maintenance does not take place, the value of the Harbour economy will not be assured. There is ample economic justification for an expanded Harbour channel up the Northeast Cape Fear River, both in the present and the promise of future economic growth. I would hope that the State can develop the legislative mechanism and administrative procedures to allow a well-conceived and long-range management solution to the problems of our Harbour.

Slide 19

A crisis-oriented, short-term viewpoint is certainly not desirable. The citizens of the State of North Carolina, New Hanover County and surrounding counties and the City of Wilmington will all benefit from a well developed legislative mechanism and administrative procedure to allow the long-range management of our Harbour. Thank you for your attention to our problems.

APPENDIX V

Remarks of Mayor Kepley

I. INTRODUCTION.

A. General Comments.

B. Purpose. My purpose is to show that the State has yet to develop a management structure capable of dealing with the problems of communities such as Carolina Beach. The town has a recreation-based economy. Use of the beach, commercial and recreation fishing and tourist-oriented facilities are the mainstays of the economy and have been so since the town was incorporated in 1925.

1. Erosion and Navigation Problems. Just as presence of the ocean supports the town, Carolina Beach's two major problems are water related, and in my remarks today, I'll cover both.

a. Beach Renourishment. The berm and dune, which provides beach erosion control and hurricane protection, has eroded badly and is in dire need of restoration. If new beach fill is not placed soon, the protection values of the berm and dune will continue to diminish. Restoration to full project dimensions will again enable us to withstand the storm driven waves of a Hurricane Hazel.

b. Inlet Problems. Carolina Beach Inlet, which provides ready access to the ocean and sustains a much needed mixture of ocean and sound water, is treacherous to navigate. This means a loss of income to our fishermen and the related service industry. The inlet is located north of the beach. It also traps sand on its littoral drift southward and contributes to the erosion of the beach.

II. BERM AND DUNE DESCRIPTION.

1. Protection Needs. Barrier islands are eroding. They are also subject to hurricanes. Perhaps if people were gifted with infinite wisdom, they would not have settled in such an area as Carolina Beach just as they should not have developed St. Louis or New Orleans. However, people have lived there for years and will continue to do so. They need and deserve protection from natural disasters just as much as anyone else does. This is not an undeveloped area. It is an existing urban, commercial and recreational setting. Ownerships and usership are not just local, but Statewide.

2. Berm and Dune History. The 14,000-foot-long project was completed in 1965 with 3.5 million cubic yards of beach fill, e.g., sand. After the project was completed, the rate of beach erosion accelerated well beyond the historical rate of erosion.

   a. Emergency Measures. Restoration was carried out in 1967 and again in 1971. Under emergency measures a stone seawall was placed at the northern end of Carolina Beach along with beach fill in 1970 and expanded in 1973 to check the erosion. The seawall is now 2,050 feet long.

   b. Project Costs. The initial cost of the project was $1.3 million with 38 per cent of the total paid by State and local government. To date, $2.1 million has been spent and $800,000 of this total came from non-federal interests.

3. Cost-Sharing Agreement. The need for restoring the berm and dune has long been recognized. Renourishment with 2.4 million cubic yards of fill had been scheduled during fiscal years 1976 and 1977, but this will not take place. Here's what happened.

a. FY 1976 Costs. The cost for FY 1976 totaled $730,000. The federal share was $433,000, the State share was $237,000 and the local share was $59,000.

b. FY 1977 Costs. The cost for FY 1977 was $4.5 million. The federal share was $2.8 million, the State share was $1.3 million and the local share was not quite $350,000.

c. Funding Difficulties. The State was unable to provide the share of the FY 1976 needs, so the Corps of Engineers was obligated to return the funds which Congress had voted for the project. It's uncertain when the federal money will be available again.

III. CAROLINA BEACH INLET.

A. Project Description. The Corps of Engineers presented 13 possible courses of action in a 28 June public meeting about the inlet. Their study effort is due for completion in 1977. The alternatives include leaving the inlet alone, stabilizing it by dredging or with jetties both with and without a navigation lock at Snows Cut and closing the inlet. The course of action which currently seems most feasible appears to be a small hopper dredge capable of bypassing sand to Carolina Beach. Using such a vessel will assure the continued exchange of ocean and sound water and aquatic organisms vital to wetlands productivity, the ocean fisheries and water quality. It will also improve navigations.

B. Environmental and Institutional Problems. Both environmental and institutional problems are associated with the inlet. Although use of the hopper dredge would restrict erosion to that resulting from

natural shore processes, it must be stressed that no protection from these problems is provided. Control of erosion and protection from hurricanes at Carolina Beach must be accomplished through implementation of the presently authorized beach nourishment program.

IV. CONCLUSION. In conclusion, the vulnerability of Carolina Beach to storm damage has increased because of the inability of the State to make a commitment to our protection. There is a place for Carolina Beach in the State's list of priorities which has gone unrecognized because of the uncertain approach to decisionmaking. We will all benefit from a systematic decisionmaking process with well-defined priorities and guidelines.

APPENDIX VI

Remarks of Mayor Sawyer

I. INTRODUCTION.

A. General Remarks.

B. Purpose: To show impact of State water resource management policies and mechanisms on Wrightsville Beach.

II. DESCRIPTION.

A. Economy of Wrightsville Beach. Tourism and fishing are important elements in the economy of Wrightsville Beach. The number of year-round residents is also increasing.

B. Erosion and Navigation Problems. Like Carolina Beach, the town's major problems are water-oriented. They focus on the berm and dune and Masonboro Inlet. The effectiveness of the berm and dune, which was authorized by Congress for hurricane and beach erosion protection, will continue to diminish if it is not restored. Full project dimensions will allow us to withstand a storm of the force of Hurricane Hazel. Masonboro Inlet, at the southern tip of the town, has been partially stabilized with one jetty. As a result the navigation channel has migrated dangerously close to the jetty and, until the second jetty is in place, we will continue to experience hazardous conditions there. Much of the sand for renourishing the beach should come from the inlet. It would move the channel away from the existing jetty and allow safe passage through the inlet. Placement of the second jetty will be carried out at total federal expense. Congress is debating funding to complete the design of the jetty in the coming fiscal year. Among the advantages of having both jetties is the added ease in obtaining sand to renourish the beach.

C. Berm and Dune Development. Similar to Carolina Beach, it is felt by us members of the local community, and was felt by the U.S. Congress and State officials, that the residential, commercial, and recreational values of Wrightsville Beach were worth protecting. And, further, that such protection could be justified in a local, regional, and even national context./ (emphasize this point) To this end, the berm and dune project was authorized. It runs from the Holiday Inn to the Masonboro Inlet and construction was completed in 1966 at a cost of $855,600 with a non-federal share of roughly 33 per cent. Restoration took place in 1970, and the total cost of the project to date is $1,061,302 including $348,500 paid by the State and local government.

III. PROBLEMS.

A. Need. As you will see during your stay here in Wrightsville Beach, the project is desperately in need of re-nourishment. We are on borrowed time and praying that the long-overdue hurricane doesn't hit before our funding problems are solved.

B. The Funding Mechanisms. The original project agreement called for a 50-50 cost-sharing between federal and non-federal interests/ for subsequent renourishment. In this regard, the original State policy was to apportion the non-federal share on an 80% State, 8 % county, and 12% city basis. As the costs of dredging grew astronomically, so did the costs of renourishment. For FY 1976 the Corps of Engineers estimated that 916,000 cubic yards of fill were needed to carry out the renourishment. Under the maintenance nourishment program State and local governments were to contribute $771,500 and the federal government $515,000 for a total of $1,287,000. The outlook for obtaining federal funds with this approach was favorable.

However, the inability of the State to fund its portion of the non-federal share eliminated prospects for federal funding.

C. Current Status. In somewhat a spirit of desperation, we have recently requested that the State budget sufficient funds in the next biennium to allow us a modicum of renourishment - not enough to provide full protection, but something, which may lessen the risk to a degree.

IV. CONCLUSIONS. There has to be a long range solution to our problem, and we have actively been investigating possibilities. We know that, eventually, the Federal Government will be out of the project maintenance business. What is needed, I guess, more than anything else, is a clearly stated and financially supported State policy on protection of major coastal communities. We need to know where we fit in the State's water resource management plans and priorities. Some State/local mechanism must be developed which will allow long-range planning stability. In this regard, I might mention that I personally toured some similar projects in New Jersey (talk about trip). I am not suggesting a similar cost-sharing arrangement, rather I am seeking a long term, well orchestrated policy planning, and funding framework, within which we at the local levels can confidently work. In conclusion, our beach is a Statewide attraction, and it brings in tourist revenue from other states. A project is available to protect this attraction. There is both a short and long term need for a State institutional mechanism to assure us of support.

APPENDIX VII

Remarks of Robert Shoffner

IV. Water Resources in General

A. Introduction. There have been three common themes to each of these previous presentations: (1) the values of North Carolina's water resources have been recognized, (2) improvements have been made to enhance their usefulness, and (3) the implementation of a framework plan of State priorities, and the development of the institutions to carry out those priorities, are essential.

We of the New Hanover County Ports, Waterways and Beach Commission are, of course, principally interested in the efficient and effective management of our local water resources. However, apart from any parochial desire we have, we realize that water resources can only effectively be managed on a comprehensive, State-wide basis. Acknowledging this, we would be remiss were we not to also join in the urgings of our compatriots--not only in the rest of the coastal areas, but in the inland areas.

For this reason, in my comments I'll mention some of the State-wide issues of importance that we, as concerned members of the water resources constituency, have learned through our associations in the Water Resource Congress and elsewhere about all of the water resource needs within our State. I'll comment first of the coastal waterways and then turn to our inland water resources.

B. Coastal Waterways.

1. Estuarine Productivity. North Carolina, with its 2,710 square miles of estuaries, follows only Louisiana and Alaska in the size and value of its estuarine area. At least 65 per cent of all commercial fishery species spend at least a portion of their lives in an estuarine environment and nearly all species depend on estuarine productivity for their sustenance. These resources are so important that an effective State mechanism to manage them is an absolute imperative.

2. Fishery Leadership. U. S. Fishery Statistics show that North Carolina is the perennial leader in the South Atlantic fishery in gross tonnage of fishing vessels, in number of fishermen

on the vessels, and in pounds of catch. There are several projects in this regard which are under consideration or are already existing. These include the development of the State's fishing industry facilities at Wanchese with the concomitant stabilization of Oregon Inlet. Right here in Southeastern North Carolina, we have the Lockwoods Folly project in which the Corps is recommending channel improvement and stabilization with a unique sand bypassing system.

3. Navigable Channels. North Carolina has 1,500 miles of navigable channels including 308 miles of the AIWW as well as two of the deepest harbors on the Eastern Seaboard. Although Wilmington Harbor and Morehead City are frequently accused of being tough competitors. I'd like to state that we recognize the value of port at Morehead City to the State of North Carolina, and State funds must be provided, as appropriate, to maintain that excellent facility.

4. Use of Waterways. Commercial and recreation fishermen, freight-hauling barges and ocean-going ships rely upon this waterway transportation network. The problem is not one of developing additional channels; instead, we need to decide which channels can be maintained in an economically efficient and environmentally acceptable fashion. The cost of dredging and disposal areas, like everything else, has nearly tripled in the last decade. There's little hope that these costs will decline. The Corps of Engineers indicates that the order of magnitude of this expense will range from $2 to $3 million annually in federal funds for maintaining these waterways. That is in 1976 dollars and does not account for inflation.

5. Inlet Stabilization. It's probable that at least 10 of the State's 23 inlets should be stabilized for the benefit of the fishing industry. However, North Carolina has only one half-completed stabilization project at Masonboro Inlet. Conversations with the Corps of Engineers reveal that although in this period of rising costs, hardly any inlets can be justified economically for

stabilization on a single and unique basis, there is nonetheless some possibility for selecting several, and accomplishing stabilization based on a regional or area-wide justification. Such a plan, however, must find its roots in a well-orchestrated State framework of plans and priorities.

6. Waterway Management. Overall, it's essential that a system of estuarine management be developed to enable us to maintain a reasonable balance between maintenance of the waterway system and preservation of the estuarine environment. The State should not by default allow the Federal Government to manage this by itself. Rather, an active State administrative capability, characterized by comprehensive planning and reasonable funding levels, is required.

C. Inland Water Resources. Turning to the State's inland water resources, it's equally apparent that guidelines, priorities for development and mechanisms for carrying out those priorities are needed and two examples immediately come to mind.

1. Falls Lake. The Falls Lake project is to be the future source of Raleigh's water supply as well as a project designed to provide flood control, recreation and fish and wildlife conservation benefits. Yet the visibility of the project in Congress has not been overwhelming since its authorization in 1965. Raleigh has been forced to make interim investments, and the overall cost has escalated four times. Vigorous State sponsorship will save millions in the long run.

2. Randleman Lake. The creation of Randleman Lake near Greensboro enjoys a high State priority because of the critical water supply needs in a water scarce region. There is also a strong need for open space in the increasingly urbanized Piedmont area, for flood control, and for recreation.

D. Conclusion. The management of our water resources is just as important as managing the land. As their use intensifies,

so does their value. It's important that the State complete its comprehensive framework plan for the development and set priorities for implementation. We should bear in mind that the Federal Government pays the greatest share of the cost. We in the New Hanover County Ports, Waterways and Beach Commission are vitally interested in getting our fair share of the water resource priorities, however, we feel that a share of a healthy, active, well-orchestrated and well-funded program is the best goal for all.

APPENDIX VIII

WATER RESOURCE DEVELOPMENT PROJECTS IN NORTH CAROLINA

STATE PARTICIPATION IN THE CIVIL WORKS PROGRAM OF THE U. S. ARMY CORPS OF ENGINEERS

Study Report

July 2, 1976

Department of Natural and Economic Resources
Office of State Planning
Office of State Budget

Origin of This Study

In the summer of 1974, budget estimates prepared by the Department of Natural and Economic Resources indicated a dramatic increase in the cost of State participation in water resource development projects. The estimated cost for the 1975 - 77 biennium was over ten times the average expenditure level over the previous ten year period. The offices of State Planning and Budget began an investigation of the causes of this increase and the responses that the State might make to it.

Following up on concern with this situation, the Department of Natural and Economic Resources recommended to the 1975 General Assembly that a committee be appointed to study financial and procedural issues of State participation in water resources development projects. House Resolution 1195 authorized a study committee which began work in the fall of 1975 under the chairmanship of Senator William Smith and Representative Vernon James.

Also in the fall of 1975, the Office of State Planning, Office of State Budget, and Department of Natural and Economic Resources established a study team to carry out a research program on State participation in water resources projects and to produce recommendations on State policies and procedures. Members of the team have appeared before the legislative study committee and have kept the committee informed of work in progress. The present paper represents the findings and preliminary recommendations of the Department of Natural and Economic Resources, State Planning, and State Budget. Many difficult questions of State policy were examined during the study. The sponsoring departments believed it better to present preliminary recommendations and alternatives in this paper rather than to attempt to resolve all the issues before a wider discussion had taken place.

After comments and opinions have been received from the legislative study committee and other interested parties, work will go on toward final detailed recommendations to be completed before the 1977 session of the General Assembly. This further work will continue to be coordinated with that of the legislative study committee.

The small watershed program of the U. S. Soil Conservation Service is the other major federal water resource program operating in North Carolina. Small watershed projects are very different from those of the Corps in the issues and requirements that they present to the State, making it difficult to treat them in the same framework. Preliminary findings and recommendations on this program will be included in a separate study report.

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I. Introduction

"Civil works" is the term used to describe the non-military construction and resource management activities of the U. S. Army Corps of Engineers. The Corps civil works program includes a great variety of projects in North Carolina, such as channel and harbor improvements for navigation, stream channel modification for flood control and agricultural drainage, beach erosion control and hurricane protection, and multi-purpose reservoirs for water supply, recreation, and flood control. Navigation and beach protection projects are of course concentrated in the coastal area of North Carolina. Stream channel modification can be carried out all over the state, but it is practiced most heavily in the coastal plain where meandering, swampy streams impede agriculture and where the flat terrain offers no possibility of controlling floods by impoundments. Multi-purpose reservoirs have the greatest environmental impact and the highest cost; they are located primarily in the piedmont and the mountain region.

The subject of this study is the State government role in Corps of Engineers projects, which includes project review and approval, financial contributions, and the operation and maintenance of facilities. Water resource development projects can make major contributions to both the economic and the natural resource needs of the state. The large federal financial contribution makes it possible to make investments in water resources that would be completely out of reach of the State acting alone. These programs are now also evolving into a major demand for State finances. Given the importance of these effects on North Carolina's resources, the following issues need careful attention:

1. How should decisions be made on State participation in water resources projects? The decisions involve approving projects, setting priorities among projects, and determining the amount of State financial participation.

2. Of the non-federal share of each project's cost, what part should be paid by State government and what part by local governments or local project beneficiaries? The equitable division of the non-federal cost share may be different for different types of projects.

3. What financing methods should be used by State and local governments for water resources projects? The alternatives are current general revenues, bonds, special taxes or assessments, and user fees.

II. Federal Authorization and Appropriations Processes

Even though the Corps' civil works program has a large impact on State water resources and requires significant State financial contributions, it is a federal program as opposed to a federal assistance or grant program. The crucial decisions on plans and priorities are made by the federal executive branch and Congress.

Projects usually originate when local groups decide to take action about a water resources problem - water supply shortage, flooding, beach erosion, etc. They contact the Corps District Engineer to discuss the problem and possible solutions. The local groups then contact their

Congressman to initiate a study, which can be done either by act of Congress, by act of the Public Works Committees, or under the Corps' continuing authority, depending on the size and nature of the potential action. The Corps study translates the problem into a potential project.

The U. S. Office of Management and Budget reviews the study at this point, primarily concerning itself with policing the methods of benefit-cost calculation, the repayment arrangements, and the unit costs of the various benefits. At this stage, two major considerations govern the project's progress. The extent and unity of local support are criticial in gaining the support of the Corps and of Congress. Congressmen will often hold off on commiting themselves to a project unless the Corps can reconcile differences among local interests. Second, professional standards such as engineering feasibility and a favorable benefit-cost ratio are important. The study report then goes to the Public Works Committees for authorization. Factors which help a project win authorization are strong local support, support by the Congressman from the district, favorable technical and economic justification, and the lack of major opposition.

The number of projects authorized is much larger than the number for which funds are appropriated, producing a large backlog. In 1972 the House Appropriations Committee listed 987 authorized projects. Five hundred and thirty were deferred or inactive due to uncertainties over cost sharing, low benefit-cost ratios, or changed conditions. Four hundred and fifty-seven projects made up the active backlog. The Corps estimated that about 500 projects were far enough along to be built in the next 5 years, but that fewer than 200 would be started at current rates of funding.

In the Water Resource Development Act of 1974, Congress instituted a two-phase authorization process. In the first phase, funds are authorized for planning studies only. After review of these phase one plans, funds may be authorized for detailed planning and construction.

The appropriations process begins with the preparation of budget proposals in the Division and District Offices of the Corps, subject to fiscal guidelines set by the Office of Management and Budget. The Corps proposes funding for projects which have strong local and Congressional support, which have all necessary planning complete, and which will give a good geographic distribution. In addition to these general considerations, current national policy gives priority to flood control, municipal and industrial water supply for urban areas, hydropower, and navigation improvements which can reduce energy use.

These regional budget recommendations are put together by the Office of the Chief of Engineers and sent to the Office of Management and Budget for review. OMB chooses projects for recommendation in the President's budget on the bases of favorable benefit-cost ratios, satisfactory cost-sharing agreements with non-federal interests, and the size of the financial commitment in the budget year and future years.

Congressional appropriations committees take the President's budget recommendations as a starting point, making changes according to the strength and influence of the Congressional backers of projects, concern for geographic balance, and the overall emphasis that Congress puts on funding for civil works projects.

A large project may take ten years or much longer in some cases to go through the long complicated process from first study to the completion of construction.

III. Direct State Participation in Civil Works Decisions

In addition to the opportunities available to influence the federal decision-making process in the Corps offices or in Congress, State government has some direct decision powers relative to civil works projects. The Flood Control Act of 1944 requires consultation and coordination with the State in the development of civil works projects. The Corps has a policy of not making recommendations to Congress over the express disapproval of the governor of the state affected. The effective use of this State authority of course depends on the institutions and procedures that are used to support it.

The Corps requires a letter of assurance that non-federal interests will meet their share of project costs before detailed project planning begins. GS 143-215.40-41 authorizes the North Carolina Board of Water and Air Resources (now the Environmental Management Commission), "in behalf of the State of North Carolina, subject to the approval of the Governor and the Advisory Budget Commission" to adopt required resolutions giving assurances of State financial participation and other forms of cooperation in civil works projects. These resolutions "may irrevocably bind" the State to the terms of cooperation included. Under some recent administrations, these letters of assurance have been signed by the Governor; under others authority has been delegated to the Director of the Department of Water and Air Resources. At present, the letters of assurance are issued by the Secretary of Natural and Economic Resources. The following language is used to express the nature of the State commitment at this stage of the process:

> No commitment of funds can be made at this time for the State's participation in the project. The Department of Natural and Economic Resources agrees to include in its Department's budget a request for funds at such times as it appears that an appropriate budget item is timely and can be justified. (Letter from the Secretary of Natural and Economic Resources to the Charleston District Engineer on the Reddies River Project, September 2, 1974).

Since the passage of the River and Harbor Act of 1970 (PL91-611, Section 221) a formal contract for non-federal cost-sharing is required before construction can begin. The Falls of the Neuse reservoir was the first large project to fall under this requirement in North Carolina. The State understandably had no established procedure for meeting this new requirement. Because such a contract is an obligation enforceable in the federal courts, and because the time for making first payments was relatively near, the approval of the General Assembly was sought. Chapter 970 of the 1971 session laws authorized the Department of Natural and Economic Resources to contract with the United States to share costs for recreation facilities at this project, such State share to come from future appropriations of the General Assembly, user charges at the recreation facilities, or other funds available to the Department.

Budgeting and appropriating funds for the State cost share of civil works projects is the final act in the State decision process. The Corps District Engineers calculate the State share of the cost of project planning and construction likely to be done in the upcoming biennium. Some

uncertainty occurs here due to the difference in budget timetables. The General Assembly appropriates funds for a two year period with knowledge of the President's budget recommendation (not Congressional appropriations) for only the first year of the period. Of course the District Engineers have some idea of what they will recommend and what will be included in the next year's federal budget. The Corps sends these needs for State funding to the Department of Natural and Economic Resources which includes them in its budget request.

Some years ago, budget requests were submitted for the full State share of the list of projects for which federal funds were anticipated during the upcoming biennium. The requests usually proved to be over-optimistic and also inaccurate as to the identity and the cost of individual projects which actually went forward. The result was frequent budget revisions by the Advisory Budget Commission and a feeling in the General Assembly that their project authorizations had little relationship to those projects actually funded. Consequently the policy was adopted of recommending a lump sum large enough to provide a State share of funds, which, when combined with the balances of previous appropriations, would fund the dollar volume of projects which experience indicated would be able to go to contract during the biennium. The lump sum request is accompanied by a list of anticipated projects to illustrate the basis for the total, but actual allocations to projects are made later as needed by the Advisory Budget Commission.

The State Budget Office, the Advisory Budget Commission, and the Governor review the budget request as the Executive Budget is prepared. Usually about $500,000 or $1,000,000 is recommended and appropriated per biennium to "keep money in the pot" for this purpose - an average of $385,145 per year over the last eleven years. Expenditures from this budget must be approved project by project by the Advisory Budget Commission, which takes action at its monthly meetings on the basis of brief project descriptions supplied by the Department of Natural and Economic Resources. No allocation requests have been turned down by the Advisory Budget Commission in recent years. Funds in this budget may be carried over from year to year until spent.

The flexibility provided by this approach permits the appropriation of smaller sums and a better understanding of its action by the General Assembly. Despite these practical advantages during the execution of the budget, it may cause confusion during budget preparation to have funds for all types of projects (Corps, Soil Conservation Service, and small projects with 100 percent State funding) all in one "pot" in the budget. The nature and distribution of the benefits is so different - for example, improvements at a major deep-water port versus a small agricultural drainage project - that separate goals and standards need to be applied in allocating resources to these purposes.

IV. Major Increases in the State Cost Share

During the eleven year period from 1963 through 1974, North Carolina appropriated a total of $4,236,600 for civil works - an average of $385,145 per year. This figures includes the State share of the cost of all Corps projects, the State share of the small watershed projects of the Soil Conservation Service, and small projects carried out with no federal aid. In March 1975, the Wilmington District of the Corps of Engineers announced requirements for State funds for projects to be carried out in a two year period, FY 1976 and 1977: a total of $7,886,600, or about ten times the average yearly level of appropriations for the preceding eleven year period.

This enormous increase includes only one district of the Corps. Additional sums were requested for other Corps districts and Soil Conservation Service projects.

In April, 1973, the Secretary of the Department of the Department of Natural and Economic Resources made an estimate of the potential State cost share connected with another subgroup of civil works projects: seven multi-purpose reservoirs (all Corps) that are now authorized, being designed, or under construction. The total is $60 million. Neither this figure nor the one in the paragraph above includes the substantial annual operating and maintenance costs that must be supplied by the State.

A part of the explanation for this dramatic increase lies in the familiar inflationary increase in land prices and construction costs. Another factor is simply that a large number of expensive projects which have been authorized over the years have now worked their way through the pipeline to the construction stage. Even more significant, recent changes in federal law have greatly increased the non-federal share of project cost.

Before 1965, the Corps could construct and operate recreation facilities at multi-purpose reservoirs at federal cost. The Federal Water Project Recreation Act of 1965 changed this by requiring a non-federal sponsor to pay 50 percent of the separable costs of the recreation lands and facilities included in a project, plus all of the continuing operations and maintenance costs. This law left a loophole: if the Corps could not find a non-federal recreation sponsor, it could acquire recreation lands at federal expense and construct the project. Minimal recreation facilities needed for health and safety could be built at federal expense. If no non-federal sponsor could be found after ten years, the separable recreation lands could be managed for another project purpose or sold as surplus. Very few states or local governments chose to make agreements with the Corps for the half-and-half shared development of recreation facilities. As of 1973, of the 101 Corps projects authorized since the 1965 Act, only three had cost-sharing agreements. By 1976, seventeen agreements were in effect.

The Rivers and Harbors Act of 1970 (PL 91-611) closed this loophole. Section 221 provides that construction on Corps projects shall not begin until each non-federal interest has entered into a written agreement with the federal government to furnish its share of the cost. The agreement is a binding contract enforceable by the United States District Court. This requirement forces local or State interests to choose between making a firm commitment for their share of recreation cost or giving up the project. The Falls of the Neuse multipurpose reservoir is the first large project to come to the contract stage under this law in North Carolina. The City of Raleigh has contracted to pay the cost of the water supply storage allocated to the Raleigh system. The State has contracted for its 50 percent share of recreation facilities development and all operations and maintenance cost. As estimated in the contract of August 15, 1972, the State share of the initial level of recreation development will be $2.9 million. If paid back over a 50 year period, annual payments of $128,000 would be required for a total of $6.4 million including 3.6 percent interest. Future recreation developments will require annual State payments varying from $25,000 to $12,000 for a total of $5 million. The State will also bear all of the operations and maintenance cost for which no estimate is given.

Another major source of increased cost to State government has been brought about by higher standards of environmental protection during project construction. The Marine Protection, Research, and Sanctuaries Act of 1972 (PL 92-532) includes provisions for regulating the

disposal of dredged material in ocean waters, including material originating from Corps civil works projects (Sections 102, 103). The Federal Water Pollution Control Act of 1972 (PL 92-500) regulates the disposal of dredged material in navigable waters. The Corps issues permits for dredge spoil disposal under both acts, but subject to the guidelines and review of the Environmental Protection Agency (Section 404).

The strong new role of EPA in regulating the discharge of dredge material will greatly increase the cost of many civil works projects that involve dredging. Navigation improvements are an important category of Civil Works projects in North Carolina due to our two major ports, many smaller ports and waterways used by the fishing industry and recreational boaters, and the Atlantic Intracoastal Waterway. The Federal government pays all of the cost of constructing and maintaining general navigation improvements, except for the cost of lands and retaining dikes for the initial and consequent disposal of dredged material. The Wilmington Harbor project is a good example of the magnitude of the cost involved. In 1960 the State provided a letter of assurance that it would pay the cost of lands and dikes for spoil disposal in connection with the dredging of Wilmington Harbor, an estimated total of $100,000. Due to the federal environmental legislation described above, and to inflation, the disposal of dredged material in certain navigable waters will no longer be allowed. Extensive dikes must be constructed at State cost to contain the dredged material on land. In March, 1975, The Corps estimated the cost to the State of diking for the Wilmington Harbor project alone to be $9.25 million over the five year period from 1976 through 1980.

V. Contracts for State Financial Participation

Since 1970, federal law requires completed cost-sharing contracts with the state or local governments before construction can begin. This federal requirement conflicts with the legal principle that one session of the General Assembly cannot commit a future one to make specific appropriations. Of course, in authorizing the beginning construction of a prison or a medical school, the General Assembly expresses an intention of following through with continuing appropriations for the completion and operation of the facility. A decision to discontinue the appropriations would not be made lightly because of the waste and program disruption involved. However, if conditions changed greatly such decisions could be made. It should be noted that the U. S. Congress does not commit itself to a specific schedule of funding for civil works projects, but makes annual appropriations even after project construction is begun.

Another problem area is that these contracts are open-ended. An estimate of the state's commitment is given but the amount to be paid depends on the actual cost of future land acquisition and construction. As of March 1976, the estimated cost of acquiring recreation land at the Falls Lake project had tripled since the contract was signed four years before, rising from about $3 million to about $9 million, of which amount the State is committed to pay 50 percent. Another area of uncertainty is the State's commitment to pay the full cost of operating and maintenance at recreation facilities, for which estimates may not be available at the time the contract is required.

The State needs to make projections of the future costs of both existing and potential commitments and to update them continually as better estimates are available. This comprehensive cost summary would provide a sounder basis for considering each individual project decision.

Further study of the legal questions surrounding the contracts is needed. North Carolina may need to specify in the contracts that the financial commitments are subject to future appropriations by the General Assembly.

VI. Planning for Water Resource Development

The State has been handicapped in participating in civil works projects because it lacked its own water resource plans to guide its decisions. Water resource plans for each river basin outlining present water uses, projected future needs, and potential development projects are a necessary foundation for selecting those projects which have the greatest benefits and those which are needed most urgently. Due to the increases in the State's cost share, the State may not be able to afford all projects now in the planning stage, making a sound method of selecting priorities all the more important.

Work on a State Water Plan has been underway for about a decade, requiring extensive collection and analysis of information about all aspects of water resources. The Department of Natural and Economic Resources has recently completed draft framework plans for each river basin which are now out for review. The framework plans will analyze needs and problems in each basin, devlop alternative plans that maximize economic, environmental, and "mixed" benefits, and apply the results to evaluate proposed civil works projects. This preliminary State Water Plan will be invaluable in providing a focus for discussion of water resource problems and alternative solutions.

Careful planning is particularly needed for decisions on multi-purpose reservoirs which involve both large costs and major land use and environmental impacts. Decisions on recreation facilities need to be placed in the context of a statewide inventory of the present availability versus unmet needs for water-based recreation, so that the most urgent projects can be identified. The same analysis should be applied to water supply. In both cases, the State should examine possibilities for meeting these needs from smaller reservoirs or existing reservoirs as well as projected Corps of Engineers projects to be sure the most economically and environmentally sound approach is taken.

VII. Alternatives and Preliminary Recommendations for State Action

Despite the recent changes which require major financial contributions from State government, the civil works program retains its fundamentally federal character. The extremely long time between project authorization and construction, the uncertainty about the progress of projects through the Congressional approval process, and the fragmentation of authority among so many actors at different levels of government make it extremely hard for State government to "manage" civil works in a rational manner. Since North Carolina cannot realistically hope to greatly influence the policies of the national program, the State must adopt the more modest goal of organizing State-controlled decisions in order to get the greatest possible benefits from our investments in the program.

Along with the increased financial demands, there have been other changes in federal requirements and new institutional developments in State government. Taken together, these changes have revolutionized the environment of State civil works decisions. Preliminary recommendations and alternatives for State action follow.

1. Mechanism for State-Federal Coordination

Civil works programs and projects are developed and executed through joint state-federal action. Close coordination between the State and the Corps of Engineers is essential. Well defined channels of communication must be maintained between the State and District Engineer Offices. The District Engineer must know who to deal with in State government and how to go about obtaining an official expression of State views and positions on specific questions. An appropriate organizational entity of State Government should be designated as the focal point of contact for District Engineers, and that entity should be given functional responsibility for coordinating State interests in civil works programs and projects.

2. Informal Coordination between State Government and the Corps of Engineers

The key to a successful civil works program is to have the State and federal decision processes moving together - otherwise no progress can occur. Frequent informal working contacts are necessary to supplement the formal procedures for project approval. When the Corps of Engineers begins any preliminary project investigations that could eventually require state approval or financial contributions, the District Engineer should notify the State, obtain State views on the situation and keep the State informed as studies proceed.

Recreation facilities are operated and maintained wholly at State expense. State recreation planners should control the design of these facilities to assure harmony with State recreation objectives and to avoid designs that require unnecessarily high operating and maintenance costs.

Corps budgets and work schedules should recognize the limits of State financial capability. Extremely large requirements for State funds presented at the last minute of State budget preparation may exceed revenue availability. Solution of this problem is made difficult by the State's two-year budget period and by the federal policy of keeping budget information secret until the release of the President's budget. Within these constraints, the Corps should do all it can to provide the State information about future requirements for funds and to schedule these requirements to be within State capabilities.

The State has the responsibility of strengthening its river basin planning, recreation planning, project approval system, and budgeting procedures to be able to communicate a clear picture of its project priorities and financial limits to the Corps.

3. Project Approval Procedures (This section contains a preliminary recommendation for a State project approval process. Some of the steps are new, while others are similar to the existing process described in Section III. Notes call attention to major changes from the present system. At one point two alternative procedures are outlined.)

A. All Corps reports on proposed projects are submitted to the governors of affected states for 90-day comment period before going to the Office of Management and Budget and to Congress. Thorough State review procedures should be set up at this point.

(1) The Governor asks the Secretary of Natural and Economic Resources to develop and draft a coordinated State response to the Corps.

(2) The Secretary of Natural and Economic Resources directs an intra-departmental review and obtains the comments of other appropriate State agencies.

(3) When the State review is complete, the Secretary of Natural and Economic Resources submits a recommended response to the Governor along with a summary of major comments received during the review.

B. When letters of assurance of State financial participation are needed to allow planning to proceed, they should be issued by the Governor after the following process:

(1) Upon receipt of the Corps' request for a letter of assurance, the Secretary of Natural and Economic Resources directs an intra-departmental staff study and report to include: (1) a description of the project; (2) its position on the State priority list for that type of project; (3) a statement of total non-federal costs, including operating and maintenance costs; (4) a summary of other State financial commitments for water resources projects; and (5) other pertinent information.

(2) When the staff report is complete, the Secretary of Natural and Economic Resources will make a recommendation to the Governor on State financial participation.

(3) After the staff report is available, the Office of State Budget and Office of State Planning will review and make recommendations to the Governor on the cost-sharing and financing arrangements.

(4) The Land Policy Council has recommended legislation to require review of the construction of "key facilities" by the Council for compability with local land classification plans and State land policy. If this legislation is passed, the review might come at this point.

(5) If the Governor approves State financial participation, he issues the letter of assurance to the Corps.

Note: This proposal would require a change in state law or a reorganization change brought about by executive order subject to legislative review. State law now provides for letters of assurance to be issued by the Environmental Management Commission, with the approval of the Governor and the Advisory Budget Commission. (G. S. 143-215.40)

C. Each year, the Governor communicates the State's priority list for civil works Appropriations to the North Carolina congressional delegation. The Water Resources Congress is invited to lend its support to these priorities.

(1) The staff of the Department of Natural and Economic Resources drafts a proposed update of project priorities each year.

(2) Following each update, the Secretary of Natural and Economic Resources submits a recommendation on project priorities to the Governor, who then makes his recommendation to the congressional delegation.

D. When the State is required to sign a contract for cost-sharing on a project for which a State letter of assurance has been issued to the Corps, approval by the General Assembly is required.

(1) An appropriate time before the contract must be executed, the Secretary of Natural and Economic Resources will prepare an updated staff study report to include: (1) the position of the project on the State priority list; (2) a summary of the project's benefits and any negative features; (3) a statement of recommended methods of financing the project (bond funds, general revenues, user charges, special taxes and assessments); and (6) a summary of existing State financial commitments for water resource projects. The Secretary will send the report and recommendations to the Governor and to the Offices of State Budget and State Planning.

(2) The Offices of State Budget and State Planning will make recommendations to the Governor on the cost-sharing and financing arrangements.

(3) If the Governor approves the project, he will have the Secretary of Natural and Economic Resources draft a bill authorizing entering into the contract.

(4) The General Assembly will approve or disapprove the bill to authorize the contract, with the understanding that approval is a commitment to appropriate the funds in later years as required.

(5) When funds are needed to fulfill such contracts, they will be included in the Natural and Economic Resources budget request specially identified as required by prior contracts.

D-1. As an alternative to the procedure in step D above, a Water Resources Development Investment Plan might be used as a vehicle for the General Assembly's project approval decisions. The Governor would submit the Plan to each session of the General Assembly, containing:

(1) Existing financial commitments, showing each year's capital and operating costs for each project.

(2) Projects proposed for State approval over the coming five years, with estimated capital and operating costs required each year by each project.

The General Assembly would approve or modify the Plan. Approval would not constitute an appropriation of funds but an authorization to the executive branch to proceed with all steps necessary to advance the projects in the Plan, including issuing letters of assurance and entering contracts. (See sample plan in the appendix.)

Note: The procedure used by the General Assembly to approve projects is one of the most important elements in the chain of events. Whether the General Assembly should act to authorize the execution of contracts for specific projects, to appropriate funds to specific projects, to approve a plan for all projects, or some combination of these acts depends in part on the legal interpretation that is given to the execution of contracts with the federal government and on any qualifying language that might be written into the contracts.

4. Non-Federal Cost-Sharing

Congress has provided for various percentages of federal contributions to civil works projects depending on the type of project and the benefits involved. The difference between the federal contribution and the total project cost must come from State or local funds. The proper share paid by the State and that paid by local governments or interests should be based on both equity and administrative feasibility. In some areas alternatives to current policies could be considered.

A. Beach Erosion Control Projects - Alternatives

(1) Continue the present policy of a State contribution of 80 percent of the non-federal share for all projects except 100 percent for the protection of State-owned property.

(2) Adopt a variable State share based on the distribution of benefits of the specific project:

(a) Protection of State-owned land and facilities. State share 100 percent of the non-federal share.
(b) Protection of beaches open to the public, with parking and access ways provided and maintained by local government. State share 50 percent (or some other share between 0 and 100 percent).
(c) Protection of private property with no public access. No State contribution.

B. Recreation Facilities at Multi-Purpose Reservoirs - Alternatives

(1) Continue the present policy of State funding of 100 percent of the non-federal share of recreation facilities construction and operation.

(2) Negotiate agreements with nearby local governments who might wish to operate their own water based recreation facilities. Municipalities who need water supplies from the impoundment might be willing to contribute to the recreation cost if the State did not choose to accept the whole cost and if a local contribution was the only way to assure the success of the project.

C. Make an effort to recover as much of the cost of recreation facilities as possible from beneficiaries through user fees.

5. Financing Methods

North Carolina has traditionally financed the State share of project cost out of current general revenues. During a period of steady revenue growth and annual costs for water resources development projects of less than $400,000 this method has been satisfactory. With enormous increases in the non-federal cost share and a slowing of revenue growth, new financing methods need to be examined by both State and local government.

A. Beach Erosion Control Projects – Alternatives

If local project beneficiaries pay a larger share of project cost, new sources of revenue may be needed. The alternatives are:

(1) Funds voted by local governments from general revenues.

(2) Bonds issued by local governments.

(3) Special assessments levied on owners of protected property.

(4) Special taxes on hotel and restaurant bills within the area to be protected.

Note: Enabling legislation may be needed to permit alternatives three and four.

B. Recreation Facilities at Multi-Purpose Reservoirs - Alternatives

The extremely large sums needed for the State share of recreation developments at multi-purpose reservoirs may be difficult to finance from current revenues. User charges may be able to cover some part of operations and maintenance costs, but it is unrealistic to try to recover capital costs.

(1) A State bond issue could be authorized to cover these capital costs, allowing the State to avoid large irregular appropriations from general revenues. Defining eligible projects for the bond issue would need careful analysis. Possibilities are:

(a) A recreation bond issue, for recreation at federal reservoirs, State park acquisition and development, State trails and scenic rivers, and the State zoo.

(b) A water resources development bond issue, for all types of civil works projects: reservoirs, navigation and beach erosion.

(2) Repaying the State share of recreation developments to the federal government over a 50-year period with interest, as allowed by federal policy.

C. Navigation - Alternatives

The significant cost here is diking for spoils disposal from dredging at major harbors. Meeting these large irregular costs from current general revenues has proved difficult.

(1) Continue the present practice of appropriations from current general revenues.

(2) Attempt to obtain federal financing of the largest diking projects (such as Wilmington Harbor) with State repayment in annual installments, as with recreation costs.

(3) Enable the Ports Authority to issue revenue bonds to support navigation improvements connected with the ports.

(4) Include diking costs in a broad water resources development bond issue.

APPENDIX

WATER RESOURCES DEVELOPMENT INVESTMENT PLAN

PROJECT	1975-77		1977-79		1979-81		1981-83	
	CAPITAL	OPERATING	CAPITAL	OPERATING	CAPITAL	OPERATING	CAPITAL	OPERATING
Existing commitments								
Claghorn Reservoir			200,000	50,000	200,000	75,000	200,000	100,000
Home Harbor			1,000,000		1,000,000	100,000	1,000,000	100,000
Proposed commitments	.....							
Piedmont Reservoir					150,000	50,000	150,000	50,000
Sandy Beach			700,000		800,000	75,000		75,000
Biennial Totals			1,900,000	50,000	2,150,000	300,000	1,350,000	325,000

APPENDIX IX

Remarks of Roy Stevens

LEGISLATIVE RESEARCH COMMITTEE ON
WATER RELATED PROJECTS

MEETING OF JULY 9, 1976
WILMINGTON, NORTH CAROLINA
1:30 P. M. APPEARANCE

Mr. Chairman and Members of the Committee:

I am Roy A. Stevens, Director, Carteret County Economic Development Council, Inc., Morehead City, North Carolina. I am here today representing both the Council and Carteret County to express our concern and interest in the State support of Water Related Projects.

It is my understanding that this Committee is to investigate procedures for State support of Water Related Projects, including those that are under the jurisdiction of the U. S. Army Corps of Engineers and the Soil Conservation Service.

Serving a Coastal County requires that we have an extreme interest in the construction and maintenance of navigable waterways and small navigational projects, and the protection of our beaches for the benefit of the citizens of Carteret County and the State of North Carolina.

I shall restrict my comments today to three major categories that are of prime interest to the citizens of Carteret County.

#1 - U. S. Army Corps of Engineers Projects

Carteret County is the location of one of the two deepwater ports in North Carolina, and with an approved project of 40 feet inside and 42 feet across the bar, which as I understand it, has adequate funds in the President's Budget this year for the completion of this improved project and having approximately 35 miles of the Intracoastal Waterway within Carteret County, plus approximately 50 to 55 miles of navigable channels, which are maintained by the U. S. Army Corps of Engineers; plus an additional 5 to 10 miles of locally sponsored projects, which require State participation in the maintenance and construction, we realize the magnitude of your responsibility.

In the President't Budget for Fiscal 1977 there is included $969,000.00 for Maintenance and $1,000,000.00 for the deepening of the Morehead Harbor from 35 feet to 40 feet.

At the present time the plans for the disposal of the spoils from both the maintenance and construction of the Morehead Harbor is scheduled to be placed on 5,200 feet of Fort Macon Beach, with this to be expanded to 25,000 feet in future years. In order to place this material on the beach as nourishment, a permanent

spoil area will be required North of Fort Macon on an island that is now owned by the State of North Carolina. It is estimated that at todays cost, the diking on this particular project will require a local share of approximately $400,000.00. It is the plans to pump the maintenance and construction spoil into this site and at a later date, when required, this spoil will be pumped on Bogue Banks as beach nourishment.

This particular project will serve two useful purposes:

1- The spoil areas today are limited and with the environmental requirements of complete diking and containment of spoils, it is only practical that this spoil be utilized for the benefit of the citizens of North Carolina. By utilization of this spoil as beach nourishment, we protect Bogue Banks and also eliminate excess spoils which would accumulate over the years.

2- To insure that adequate depth in the Channel is maintained it will require a minimum of semi-annual dredging and at times more frequent.

At the present time the U. S. Army Corps of Engineers Dredge Gerig is in the Morehead Harbor doing emergency maintenance dredging within the Channel to permit vessels of a draft of 35 feet to navigate the Channel.

The Gerig is a Hopper Dredge and the spoils removed will be dumped at sea.

In addition, as I have previously mentioned, we have approximately 35 miles of the Intracoastal Waterway within Carteret County. In the President's Budget for 1977 there is included $3,013,000.00 to maintain the Intracoastal Waterway from the South Carolina line to the Virginia line. The spoils from this maintenance dredging must be disposed of in an approved manner. Again, local funds are required to contain these spoils.

In Core Sound, the Channel is used extensively by the commercial fishing vessels of the class of 18 feet and above, which number in excess of 1,200 in Carteret County, and again this spoil must be contained on high land or by an approved method within the Sound. Just recently the U. S. Army Corps of Engineers awarded a contract to T. D. Eure Construction Co., Morehead City, for the placement of Nylon Filled Bags to contain spoil from the maintenance dredging of Core Sound.

During the month of June, the Advisory Budget Commission approved $28,000.00 for the construction of dikes at Davis as the local share of a U. S. Army Corps of Engineers Project to provide an access channel to the waterfront at Davis and turning basin.'

In addition, we have Bulkhead, Gallants Channel, and the Taylors Creek Project in the Beaufort Area, which is maintained by the U. S. Army Corps of Engineers. In the State Budget there is included $80,000.00 as the local share to provide diking for the maintenance dredging of these projects.

In January, 1976, the Bulkhead Channel was dredged to bring the project back to dimensions of 15 feet at MLW. On June 9th of this year, the Bulkhead Channel had shoaled to provide a maximum of only 12.6 feet at MLW. The maintenance of these projects are a continual effort and must be supported by State Funds to insure that Local, State and International Commerce can utilize the approved navigational projects.

In addition to the Navigable Channels that we have mentioned, we have Bogue Inlet, Beaufort Inlet, Barden Inlet, Drum Inlet and Ocracoke Inlet that must be maintained to insure the safety of our commercial fishing vessels, pleasure boats and ocean-going vessels that navigate these Inlets.

#2 - Small Navigational Projects

In the Coastal Waters of North Carolina, there are a number of worthwhile projects that could be developed and are urgently needed to serve the needs of the commercial fishermen and the pleasure boat owners of our State.

During the past five years we have been involved in three projects in this category.

A- The First Project was a Navigational Channel between Nelson-Bay and Long-Bay in the Eastern Section of Carteret County. This was a project that was designed 4 and 1/2 miles long to save the fishermen traveling time from the Neuse River to Core Sound and to the Atlantic Ocean through Drum Inlet. This project originally was estimated at$140,000.00 of which the State has committed $112,000.00 as 80% of the estimated cost.

This project is now some 75 to 80% complete and the commercial fishermen of Eastern Carteret County are reporting increased catches in the Long-Bay end of the Project as a result of the increased salinity. It is anticipated that this project can be completed within the next 12 months with the exception of a bridge over Salters Creek which will permit commercial fishing vessels to utilize the entire channel. A detail study of the requirements for the Bridge establishes a minimum of a 35 Foot Vertical Clearance Bridge, which will be adequate to accommodate the height of the majority of the fishing vessels that will use the Channel. The Economic Justification on this project established

that the total cost would be repaid in savings of operating costs to the commercial fishermen in 4 1/2 years.

B- The Second Project is a navigational Channel from Bogue Sound to the waterfront at Salter Path. This is a project that has been under consideration for many years by both the U. S. Army Corps of Engineers and the State of North Carolina. During 1975 the Carteret County Board of Commissioners committed to provide 20% of the cost of a project which would provide a 2,195 foot Channel along the waterfront at Salter Path and a 1,000 foot access Channel to Banks Channel to serve the commercial fishing interest of this community. The Economic Justification for the project was established through a detail study by the U. S. Army Corps of Engineers. The estimated cost for both the Channels and Bulkheading of the waterfront to prevent further erosion at Salter Path was estimated at $176,000.00 with the State of North Carolina providing $146,000.00. Unfortunately, due to the recession and the tight budget for the State of North Carolina, the Advisory Budget Commission in February withdrew $1,000,000.00 in Public Works Funds from the Department of Natural and Economic Resources. We are now holding this project in abeyance until such time as State Funds can be acquired for participation in this urgently needed project.

C- Calico Creek Project

The number of commercial fish houses along Calico Creek have decreased in recent years due to an inadequate Channel in Calico Creek from the Newport River to the 20th Street Bridge in Morehead City. The U. S. Army Corps of Engineers has studied this project and has determined that it is economically justified when and if PL107 Funds can be acquired for the project. Again this will require local or State Funds to provide diking for the dredging spoils of this project.

#3 - Beach Erosion

As you are all aware beach erosion in North Carolina has been a serious problem and the protection of the Outer Banks and capital investments along our beaches, that are enjoyed by citizens of our State and Nation, is of major importance to the economy of North Carolina.

The latest statistics, prepared by Dr. Lewis Copeland, University of Tennessee, for the N. C. Department of Natural and Economic Resources, reported Travel Expenditures for North Carolina in excess of 1 Billion Dollars for the year 1975. To us in Carteret County this is a major industry. The expenditures by tourist, as reported by Dr. Copeland for the year 1975 in Carteret County, amounted to 9 Million plus Dollars. This can easily double or

triple in the foreseable future with the establishment of the National Seashore Park on Core Banks.

There have been limited public funds expended in Carteret County in recent years in the protection of our beaches.

An experimental groin system was funded by the Office of Environmental Management, Department of Natural and Economic Resources, for Bogue Banks in the vicinity of Club Colony. The residents and owners of Club Colony provided 20% of the cost which amounted to $4,000.00 and The State of North Carolina provided $16,000.00 for the experimental groin system. These groins have been successful and have protected the capital investment of our citizens of the State.

The residents of Emerald Isle and the Town of Emerald Isle spent approximately $10,000.00 on similar groins at Bogue Inlet to prevent a major erosion problem at that location. Again these groins have been successful in retarding and reversing erosion.

As mentioned previously the beach nourishment project from spoils dredged during maintenance and construction of the Morehead Harbor along the Fort Macon and Atlantic Beach area may be both a savings of funds and provide nourishment that is required to protect the capital investment on our Outer Banks in this area.

Gentlemen, we have mentioned briefly several major projects within Carteret County that now require State participation and will require State Participation in future years.

We have not dealt with Soil Conservation Service Projects in that, at the present time, we are not involved in these type projects; but this could be a requirement in the future and this could require State Participation.

Having been associated in one capacity or another, with local government, for many years, I can assure you that local government cannot carry the financial burden that would be required if the Coastal Counties were required to provide the local share in U. S. Army Corps of Engineers and Soil Conservation Service, Water Related Projects.

In the 1975-76 Budget, the Ad Valorem Tax Levy for Carteret County was $1,845,000.00 of which in excess of $1,000,000.00 was required in educational activities. You can readily see that Carteret County could not provide the local share for maintenance and construction diking of the Morehead Harbor and the local share for other maintenance dredging throughout our County.

I might also mention that the citizens of North Carolina benefit from the port at Morehead City and the various waterways that serve our area.

Under the "Philadelphia Formula" it is estimated that each ton of cargo across a deep-water port generates $40.00 in benefits to the region. If we take this into consideration, the 1,500,000 tons that passed across the docks at Morehead City during 1975 generated $60,000,000.00 in benefits to the State of North Carolina. In addition, the approximately 250,000 to 300,000 tons of phosphate that passed through the port at Morehead City in any year helps generate the 1,200 jobs of Texasgulf at Lee Creek. This of course could be expanded in many directions to include the tobacco, furniture and other industries throughout North Carolina that use the port at Morehead City.

As we understand the assignment of this Committee, you are to investigate procedures to insure adequate State Funding for Water Related Projects throughout the State of North Carolina.

#1 - The U. S. Army Corps of Engineers is aware by experience and studies the projects which will require local participation. I am sure that they can provide to the State of North Carolina a list of these projects and their projected activities for the next 10 years. I am sure they can provide to the State of North Carolina the estimated cubic yards of material that they will be required to dredge, either in maintenance or new construction and through the State Personnel determine the acreage and areas that will be required to contain this spoil on each individual project. By determining these factors an estimate can be established on the local share that will be required.

#2 - The Counties within North Carolina can submit to the State potential local navigational projects and the time-table in which these can be accomplished on the local level. Estimated cost can be established and priority set to clarify and establish the State requirements for local sponsored navigational projects.

#3 - Over a period of years and through various studies, beach erosion can be closely calculated and the financial requirements estimated by years for a 10 year period. The State of North Carolina can determine the amount of funds that can be invested for the protection of the Outer Banks of North Carolina.

#4 - Soil Conservation Service Projects

These projects can be handled in the same manner as the U. S. Army Corps of Engineers Projects. Due to requirements for Engineering, Environmental Impact Statements and other criteria for Soil Conservation Service Sponsorship, adequate time can be

permitted for the State of North Carolina to appropriate funds for participation.

May we make the following recommendations

A - That the State of North Carolina recognize the importance of our navigable waterways in the same concept that our Inter-state and Major Highway System is recognized as vital to the economy of our State and that adequate funding be assured to meet the maintenance and construction costs.

B - That the State of North Carolina accept the responsibility for the construction and maintenance of local navigational channels which are for public use when they can be economically justified and meet a priority system to fit into available funding. Similar to the way Secondary Roads are now allocated.

C - That Beach Protection be evaluated in the context of the value of the Outer Banks as Protection for the mainland and the value of the beaches to the Economy of Coastal North Carolina That as a result of these studies that funds be made available on an equitable basis to provide either Beach Nourishment or protective measures where through engineering, a reasonable amount of success can be anticipated.

D - That Soil Conservation Projects be included in the total Water Development Plans of the State, but, due to not anticipating a project in this category, we prefer not to make a recommendation.

We would like to thank the Committee for their interest in Water Related Projects and this opportunity to discuss some of the major projects of Carteret County, North Carolina.

APPENDIX X

STATUTORY AUTHORIZATION FOR ASSURANCES OF STATE AND LOCAL COOPERATION
(G.S. 143-215.40 and -215.41)

§ 143-215.40. Resolutions and ordinances assuring local cooperation. — (a) The boards of commissioners of the several counties, in behalf of their respective counties, the governing bodies of the several municipalities, in behalf of their respective municipalities, the governing bodies of any other local government units, in behalf of their units, and the North Carolina Environmental Management Commission, in behalf of the State of North Carolina, subject to the approval of the Governor and the Advisory Budget Commission, are hereby authorized to adopt such resolutions or ordinances as may be required giving assurances to any appropriate agency of the United States government for the fulfillment of the required items of local cooperation as expressed in acts of Congress or congressional documents, as conditions precedent to the accomplishment of river and harbor, flood control or other such civil works projects, when it shall appear, and is determined by such board or governing body that any such project will accrue to the general or special benefit of such county or municipality or to a region of the State. In each case where the subject of such local cooperation requirements comes before a board of county commissioners or the governing body of any municipality or other local unit a copy of its final action, whether it be favorable or unfavorable, shall be sent to the Secretary of Natural and Economic Resources for the information of the Governor.

(b) Within the meaning of this Part, a "local government unit" means any local subdivision or unit of government or local public corporate entity (other than a county or municipality), including any manner of special district or public authority.

§ 143-215.41. Items of cooperation to which localities and the State may bind themselves. — Such resolutions and ordinances may irrevocably bind such county, municipality, other local unit, or the State of North Carolina, acting through the Environmental Management Commission, to the following when included as requirements of local cooperation for a federal water resources development project:

(1) To provide, without cost to the United States, all lands, easements, and rights-of-way required for construction and subsequent maintenance of the project and for aids to navigation, if required, upon the request of the Chief of Engineers, or other official to be required in the general public interest for initial and subsequent disposal of spoil, and also necessary retaining dikes, bulkheads, and embankments therefor, or the costs of such retaining works;

(2) To hold and save the United States free from damages due to the construction works and subsequent maintenance of the project;

(3) To provide firm assurances that riverside terminal and transfer facilities will be constructed at the upper limit of the modified project to permit transfer of commodities from or to plants and barges;

(4) To provide and maintain, without cost to the United States, depths in berthing areas and local access channels serving the terminals commensurate with depths provided in related project areas;

(5) To accomplish, without cost to the United States, such alterations, if any, as required in sewer, water supply, drainage, electrical power lines, and other utility facilities, as well as their maintenance;

(6) To provide, without cost to the United States, all lands, easements, rights-of-way, utility relocations and alterations, and, with the concurrence and under the direction of the Board of Transportation, highway or highway bridge construction and alterations necessary for project construction;

(7) To adjust all claims concerning water rights;

(8) To maintain and operate the project after completion, without cost to the United States, in accordance with regulations prescribed by the Secretary of the Army or other responsible federal official, board, or agency;

(9) To provide a cash contribution for project costs assigned to project features other than flood control;

(10) To prevent future encroachment which might interfere with proper functioning of the project for flood control;

(11) To provide or satisfy any other items or conditions of local cooperation as stipulated in the congressional or other federal document covering the particular project involved.

This section shall not be interpreted as limiting but as descriptive of the items of local cooperation, the accomplishment of which counties, municipalities and the State are herein authorized to irrevocably bind themselves; it being intended to authorize counties, municipalities and the Environmental Management Commission in behalf of the State to comply fully and completely with all of the items of local cooperation as contemplated by Congress and as stipulated in the congressional acts or documents concerned, or project reports by the Army Chief of Engineers, the Administrator of the Soil Conservation Service, the Board of Directors of the Tennessee Valley Authority, or other responsible federal official, board or agency.

NORTH CAROLINA CONSTITUTION, ART. V
SECS. 3-4. (DEBT PROVISIONS)

Sec. 3. *Limitations upon the increase of State debt.*

(1) *Authorized purposes; two-thirds limitation.* The General Assembly shall have no power to contract debts secured by a pledge of the faith and credit of the State, unless approved by a majority of the qualified voters of the State who vote thereon, except for the following purposes:

(a) to fund or refund a valid existing debt;

(b) to supply an unforeseen deficiency in the revenue;

(c) to borrow in anticipation of the collection of taxes due and payable within the current fiscal year to an amount not exceeding 50 per cent of such taxes;

(d) to suppress riots or insurrections, or to repel invasions;

(e) to meet emergencies immediately threatening the public health or safety, as conclusively determined in writing by the Governor;

(f) for any other lawful purpose, to the extent of two-thirds of the amount by which the State's outstanding indebtedness shall have been reduced during the next preceding biennium.

(2) *Gift or loan of credit regulated.* The General Assembly shall have no power to give or lend the credit of the State in aid of any person, association, or corporation, except a corporation in which the State has a controlling interest, unless the subject is submitted to a direct vote of the people of the State, and is approved by a majority of the qualified voters who vote thereon.

(3) *Definitions.* A debt is incurred within the meaning of this Section when the State borrows money. A pledge of the faith and credit within the meaning of this Section is a pledge of the taxing power. A loan of credit within the meaning of this Section occurs when the State exchanges its obligations with or in any way guarantees the debts of an individual, association, or private corporation.

(4) *Certain debts barred.* The General Assembly shall never assume or pay any debt or obligation, express or implied, incurred in aid of insurrection or rebellion against the United States. Neither shall the General Assembly assume or pay any debt or bond incurred or issued by authority of the Convention of 1868, the special session of the General Assembly of 1868, or the General Assembly of 1868-69 and 1869-70, unless the subject is submitted to the people of the State and is approved by a majority of all the qualified voters at a referendum held for that sole purpose.

(5) *Outstanding debt.* Except as provided in subsection (4), nothing in this Section shall be construed to invalidate or impair the obligation of any bond, note, or other evidence of indebtedness outstanding or authorized for issue as of July 1, 1973. (1969, c. 1200, s. 1.)

Sec. 4. *Limitations upon the increase of local government debt.*

(1) *Regulation of borrowing and debt.* The General Assembly shall enact general laws relating to the borrowing of money secured by a pledge of the faith and credit and the contracting of other debts by counties, cities and towns, special districts, and other units, authorities, and agencies of local government.

(2) *Authorized purposes; two-thirds limitation.* The General Assembly shall have no power to authorize any county, city or town, special district, or other unit of local government to contract debts secured by a pledge of its faith and credit unless approved by a majority of the qualified voters of the unit who vote thereon, except for the following purposes:

(a) to fund or refund a valid existing debt;

(b) to supply an unforeseen deficiency in the revenue;

(c) to borrow in anticipation of the collection of taxes due and payable within the current fiscal year to an amount not exceeding 50 per cent of such taxes;

(d) to suppress riots or insurrections;

(e) to meet emergencies immediately threatening the public health or safety, as conclusively determined in writing by the Governor;

(f) for purposes authorized by general laws uniformly applicable throughout the State, to the extent of two-thirds of the amount by which the unit's outstanding indebtedness shall have been reduced during the next preceding fiscal year.

(3) *Gift or loan of credit regulated.* No county, city or town, special district, or other unit of local government shall give or lend its credit in aid of any person, association, or corporation, except for public purposes as authorized by general law, and unless approved by a majority of the qualified voters of the unit who vote thereon.

(4) *Certain debts barred.* No county, city or town, or other unit of local government shall assume or pay any debt or the interest thereon contracted directly or indirectly in aid or support of rebellion or insurrection against the United States.

(5) *Definitions.* A debt is incurred within the meaning of this Section when a county, city or town, special district, or other unit, authority, or agency of local government borrows money. A pledge of faith and credit within the meaning of this Section is a pledge of the taxing power. A loan of credit within the meaning of this Section occurs when a county, city or town, special district, or other unit, authority, or agency of local government exchanges its obligations with or in any way guarantees the debts of an individual, association, or private corporation.

(6) *Outstanding debt.* Except as provided in subsection (4), nothing in this Section shall be construed to invalidate or impair the obligation of any bond, note, or other evidence of indebtedness outstanding or authorized for issue as of July 1, 1973. (1969, c. 1200, s. 1.)

APPENDIX XI

BEACH EROSION AND HURRICANE PROJECT AUTHORIZED
BY CONGRESS

Project Name	Federal Cost	Non-Federal Cost
Bodie Island - 18 mi. dune/berm at Nags Head (inactive)	$14,300,000	$12,500,000
Bogue Banks Study (underway)	421,000	
Brunswick Co. Beaches dune/berm (inactive)	27,200,000	14,800,000
Cape Lookout 51 mi. dune/berm (inactive)	17,700,000	
Carolina Beach dune/berm (30% complete and suspended)	6,530,000	6,570,000
Fort Fisher Beach Restoration Study (complete)	56,000	
Hatteras Is. Beach Erosion Study (inactive)	367,000	
Hyde Co. 48 mi. dike (inactive)	3,770,000	1,530,000
Neuse River Barrier below New Bern (deferred)	18,318,000	7,800,000
North River dike (inactive)	687,000	278,000
Ocracoke Is. dune/berm (inactive)	8,940,000	360,000
Washington, NC Study (inactive)	237,000	
West Onclow Beach Study (inactive)	390,000	
Wrightsville Beach Study (inactive)	289,000	

North Carolina Department of Natural & Economic Resources

JAMES E. HOLSHOUSER, JR., GOVERNOR · GEORGE W. LITTLE, SECRETARY

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October 21, 1976

Senator William G. Smith
One North Third Street
Wilmington, North Carolina 28401

and

Representative Vernon G. James
Route 4
Elizabeth City, North Carolina 27909

Dear Senator Smith and Representative James:

I have reviewed the draft report of your Committee on Water Projects Priorities and feel that considerable progress has been made in understanding this complex issue. However, I feel that the Committee's findings concerning the beach erosion cost-sharing issue may have been biased by vested interests' testimony given at the public hearing. Appropriate allocation of these costs and the evaluation of alternative protective measures is a complex subject worthy of definitive state policy based upon intensive investigation and analysis.

Basically, the beach erosion "problem" results from emplacement of static boundaries and structures on a dynamic land form, and the benefits from efforts to control erosion accrue to the littoral land owner. Public and particularly State interests are involved only when public facilities (e.g., highways) are threatened or damaged. After all, the beach will still be there for the enjoyment of visitors even if it has naturally moved inland as a result of wind and water action.

In many cases, people have built too close to the ocean and have utilized the protective frontal dunes as sources of fill. Others have built in natural overwash areas. Protecting such development is a very expensive proposition (see attached list); in fact, it frequently is too expensive for either public or private interests to undertake. In other cases, beachfront property owners have respected the dynamic nature of the shoreline, have built back from the beach and behind the dunes, and no beach erosion "problem" exists.

In addition to the cost-sharing issue, the very high cost of beach erosion projects dictates that we calculate the projects' long-term public benefits and compare them with benefits from other applications of State

Senator William G. Smith
Representative Vernon G. James

October 21, 1976

funds (such as the harbor projects at Wilmington, Morehead City and Wanchese) to determine where to best apply to our limited financial resources. In many cases (particularly along undeveloped or developing beaches), our money might better be spent by preventing unwise development than in undertaking expensive corrective action.

As part of the Departmental review recommended in the Committee's report, we will address the beach erosion issue in considerable depth and attempt to develop a policy which is fair to both the individual landowners and the public at large.

Sincerely,

David A. Adams

DAA/ch

CC: Mr. Milton Heath
Mr. John Morris

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